TO SUBSCRIBERS OF THE MEDICAL EXAMINER.

Any gentleman having either of the following numbers to spare will confer a favor on the publishers by transmitting them by mail: February number for 1848, '49, '50, '51, '52 and '53.

THE MEDICAL EXAMINER.

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Papers for publication must be received *before* the 16th of the month, or they cannot appear in the forthcoming number.

The following Journals have been received in exchange:

Philadelphia Medical News, Sept.
American Journal of Pharmacy, ditto.
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Peninsular Journal of Medicine, ditto.
Western Journal of Medicine and Surgery, ditto.
Charleston Medical Journal, ditto.
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Western Lancet, ditto.
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BOOKS AND PAMPHLETS RECEIVED.

Carpenter's Principles of Comparative Physiology. Blanchard & Lea.
Treatment of Old Ulcers. By Frank H. Hamilton, M.D.
Observations on the Simaba Cedron. By S. S. Purple, M.D.
Report of the Sanitary Committee of the Philadelphia Board of Health.
Announcement of the University of Michigan.
Announcement of the Starling Medical College.
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The foreign correspondents of the Examiner will please direct their Exchanges, Books for review, and other communications, to the care of Trubner & Co., No. 12 Paternoster Row, London, or Mr. H. Bosange, 21 Bis, Quai Voltaire, Paris.

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THE

MEDICAL EXAMINER.

NEW SERIES.—NO. CXVIII.—OCTOBER, 1854.

ORIGINAL COMMUNICATIONS.

Case of Rupture of the Uterus, in which the operation of Gastrotomy was successfully performed by John Neill, M. D., Surgeon to the Pennsylvania Hospital. By JOHN K. MASON, M. D., of Philadelphia.

Monday, 24th of July, called to Mrs. John McDevitt, South above 20th street, in labor with her sixth child; reached her at 9, P. M.; had been in active labor for about an hour; of a florid complexion, somewhat fleshy, large muscular development, with all the appearance of possessing a constitution of more than ordinary strength and vigor.

Upon examination, found the os uteri about half open, membranes presenting unbroken, the head to be felt high up above the superior strait; the pains were good, but by no means violent, with distinct remissions of five or six minutes; left her, and returning in about an hour, found the os uteri fully open, pains somewhat stronger, but still the presenting part did not descend. I now ruptured the membranes in the expectation that, as there was neither contraction nor rigidity, the head would come down into the pelvis without further delay. In this I was disappointed, and it was evident that the head had some difficulty in entering

the superior strait. Still it advanced a little, and I thought I could detect the anterior fontanel looking towards the left acetabulum, giving the fourth position of Baudeloque. I was, however, by no means certain on this point, but resolved to wait. I made a visit in the next street, and returned to the patient in less than half an hour; the pains were now much stronger, and I thought that the head had advanced slightly. At this time Mrs. M. was obliged to get up, for the purpose of relieving her bowels, and I went down stairs, still without the slightest anxiety as to the result of the labor, for the spirits were good, the countenance cheerful, the woman well formed and vigorous, and a state of active labor had not existed for more than two hours and a half.

While at stool, the patient had two pains; during the latter she suddenly complained of intense agony, with a burning sensation in the right side; the woman hurried her to bed, and called me into the room; I found her on her back in great torture, which she assured me was no longer the pain of labor, but that something had gone wrong inside of her.

I examined her pulse and found it but little altered; this, added to the circumstance of their being neither vomiting nor cold clammy skin, nor any thing like an approach to syncope made me hope that matters were not so bad as I had at first apprehended; but after administering some forty drops of laudanum, using hot fomentations, and waiting for some time, finding that the uterine contractions were completely suspended, that the presenting part had receded, and that there was a sanguineous discharge, though not profuse from the vagina, I felt convinced that the uterus was ruptured.

Before, however, proposing any operation, I called upon Dr. Hollingsworth for his advice and assistance. He immediately came in the kindest manner, and after careful investigation, the diagnosis was distinctly made out. The placenta had *not* passed into the cavity of the abdomen, for it could be distinctly felt with the cord passing from it. The head of the child could be detected through the abdominal parietes occupying the lower part of the abdomen on the right side, near the inguinal region, but no portion of it remained in the uterus.

Under these desperate circumstances, we deliberated with sad forebodings on the treatment to be adopted, in order, if possible,

not to lessen the little chance of life remaining. I am aware that all the best authorities recommend introducing the hand through the torn womb, into the bowels of the victim, seizing the feet, and first dragging the infant back into the womb, and from thence, per vias naturales, into the world. They say that it gives the child a better chance; it may be so, I am not prepared to dispute that point, for I thank God I have had no experience in such a procedure; but this I do know, that the description of the operation has always filled me with unutterable horror.

Another thing, which I am bound to confess, though it may appear very unprofessional and unnatural to some, is, that I never thought of the child or its life, or anything about it, except to wish, that as it had pleased God to place it there, it would please him, in his infinite mercy, to assist me in getting it away, without tearing the poor devoted woman to pieces, and entailing upon myself the terrible conviction, that I had made almost certain death a certainty.

After due consideration, however, we determined to explain the nature of the necessary operation, by turning, to the patient, and propose it as a dernier resort. This we did, but she absolutely refused to submit to it; and from the hydrocephalic condition of the head, afterwards ascertained, we had reason to be thankful that she did so. At this time, there was no vomiting, the expression of her countenance was good, the pulse firm, and the skin natural; the pain in the abdomen, at first very severe, had now much abated; and after administering a powerful dose of morphia we left her, determining to see her in the morning, and then be guided by circumstances.

Next morning, the 25th, when Dr. Hollingsworth and myself visited her, we found her much better than we anticipated; pulse firm and strong, countenance bright and mind unclouded; longer to leave her undelivered was out of the question; professional duty and common humanity, alike demanded that an effort, however desperate, should be made to save her. We, therefore, determined to propose gastrotomy, as that operation, in our opinion, afforded her the best chance; to this, encouraged by feeling better than she anticipated, she at last consented, and after consulting Dr. Neill, who undertook the performance of the operation, it was determined on.

Operation by Dr. Neill.—The patient was placed upon a stout

table covered with blankets, her shoulders and head supported by pillows; and as a preliminary step, about four ounces of ether were administered by inhalation. The incision was made in the linea alba, commencing about two inches below the umbilicus, and extending towards the pubis full six inches; the moment the opening was made, large quantities of mingled blood and clots escaped, the omentum seeming saturated with blood, and both the visceral and parietal peritoneum being deeply stained. A dead child's back presented, its head lying low down towards the right groin, its feet to the left; it was immediately removed and found to be hydrocephalic, the bi-parietal diameter of the head measuring, I should suppose, six inches, the occipito frontal probably seven. Its entire weight I should judge to be not less than ten pounds.

The rent in the uterus appeared to be enormous, and perfectly uncontracted, for the operator passed both hands through it, right down into the organ, and, as it were, scooped up the placenta with all the coagula within his reach. Upon the removal of his hands, the womb instantly contracted to about the size of a man's fist. The blood, fluid as well as coagulated, was then removed from the cavity of the abdomen as far as practicable, disturbing the viscera as little as possible. The incision was then closed by five sutures, and afterwards by long adhesive straps, leaving an opening at the lower part of the wound to favor the escape of fluids; a compress and binder completed the arrangement.

The patient's strength was less exhausted than could have been anticipated; spirits good; pulse 120—firm and equal; the time occupied by the whole operation did not, I should think, exceed five minutes. In half an hour she was placed in bed, and an enema of laudanum administered; grain doses of opium were directed to be given by the mouth every three hours, in order to keep her, if possible, in a perfect state of repose, and prevent any action of the abdominal viscera; at the same time the system was supported by nourishing fluids, beef tea, &c.

Shortly after the operation the patient began to vomit a greenish watery fluid, which continued several hours, but was checked by the exhibition of small quantities of brandy with ice; the opium treatment seemed to agree with her, for she slept and complained of but little pain.

On the morning of the 26th I visited her in company with

Dr. Hollingsworth. Found her tolerably easy; mind cheerful; tongue clean and moist; pulse 120; the abdomen was tympanitic and very much distended; the breathing much embarrassed by the accumulation of gas. Ordered her to continue the opium pills and to have an injection containing turpentine.

On making my evening visit I learned that the bowels had been slightly opened, and that she had passed large quantities of flatus, by which the tympanitic distension of the abdomen was much lessened; breathing easy and natural; pulse rapid and weak. Directed brandy to be continued with the opium.

27th and 28th.—Continued in much the same condition—occasionally vomiting.

On the 29th Dr. Neill visited her with Dr. Hollingsworth and myself. Removed the stitches from the wound, which was healthy and closing extremely well; she was now ordered milk punch, ad libitum.

At this time there was a very copious, dark, offensive discharge from the vagina, which was kept continually syringed with warm water and soap. The bowels had been moved once copiously; pulse 120; tongue moist, but slightly furred. The patient looked so hopeful and strong, that we began to feel encouraged.

On the morning of the 30th I understood that she had passed a restless night. Looked very much worse; the lips were pale; countenance dejected; pulse 130; vomiting of green matter without effort, in fact a regurgitation of the fluids contained in the stomach.

I began to lose hope. Still her mind never wavered—day nor night—and when spoken to she replied quickly and clearly, but without anything like an unnatural elevation, a condition which I have sometimes observed in bad cases of uterine phlebitis. The discharge from the vagina was less copious and less offensive.

When I saw her in the evening she was laboring under the worst possible symptoms; so much so, indeed, that I thought it possible she might die before the morning. Her pulse was from 135 to 140—very weak; her feet and legs were cold, also the lower part of the belly; her wrists and arms to the shoulders in the same condition, and bedewed with a clammy sweat.

I confess I regarded her as moribund, and the priest in attend-

ance told her that she was dying and must make her peace with God; the poor woman replied that she would make her peace with God most willingly, but that the Revd. Father was wrong, that she was not dying yet, she did not feel like dying. And as it proved, she was right, for the next morning, the 31st, I was agreeably surprised to find that her skin had regained its natural temperature, that her strength had improved, and that she was altogether better than on the previous day. There was no pain on pressure of the abdomen, but still there was considerable tympanites, and the pulse continued at 135.

On the first of August the vomiting continued, but only occasionally.

On the 2d, vomiting had ceased entirely. I watched with great anxiety for a diminution in the frequency of the pulse, as indicating some favorable change, but as yet in vain.

Notwithstanding the steady pursuance of the opiate treatment, the patient's bowels, on the 1st, were largely opened, three or four times. She complained of great pain, before each evacuation; opiate enemeta checked this, and on the 2nd she had but one stool, perfectly natural in color, and of the consistence ordinarily produced by a dose of castor oil.

August 3d.—Pulse somewhat slower—about 120; dressed the wound in the abdomen; did not think it looked quite so well; some discharge from one of the suture openings; was suffering from great uneasiness of the bowels, they having been opened several times; before each movement considerable pain was complained of, somewhat resembling the tormina of dysentery—color perfectly natural. In the evening there again appeared great coldness of the extremities. Ordered an enema of starch and laudanum, with hot bricks to the legs and feet, brandy and milk to be given freely.

On the fourth, found the patient warm, pulse 130, tongue foul, complaining of great pain in the bowels, which had been moved several times during the night, the breathing high and labored. Both Dr. Neill and myself thought her prospect of recovery worse than usual. Dr. Hollingsworth had left town, and I was obliged to be absent from the city for some hours, Dr. Neill therefore undertook to see her for me. In the evening, I found her symptoms the same as in the morning; ordered her a large tea-

spoonful of laudanum, as an injection; and desired the attendant to give her all the nourishment she could take, with a continuance of the brandy and milk.

Saw her, with Dr. Neill, on the morning of the 5th, breathing decidedly improved, countenance and spirits better, though the pulse was weak and continued at 130; tongue cleaning; dressed the abdominal wound, which looked much healthier, though there was considerable discharge from another of the suture wounds; had passed a comfortable night, slept well, and had had no pain nor trouble with her bowels; but there had been a considerable discharge from the womb, described by the nurse as being of a clear red color, and devoid of smell.

At half past nine in the evening saw her again, condition unchanged, pulse the same, uterine discharge still copious, bowels had been opened once.

On the 6th, found her much improved, pulse 120, tongue clean, expression of face natural, heat of skin almost natural, with very little thirst, the abdominal wound nearly healed. In the evening, found her easy, but showing more weakness. This I attributed to the uterine discharge, which continued copious.

Morning of the 7th, stronger and better, pulse 110, discharge from the womb much lessened; had slept soundly all night. At ten o'clock, evening of the same day, great change had taken place; pulse 100, firm and steady, uterine discharge nearly suppressed; had taken her food regularly and with appetite; bowels had been opened once naturally during the day.

From this time she improved so rapidly, that on the 15th, she came down stairs; on the 24th, just a month from the time of the rupture, was at the wash-tub; and on the 2nd of September, I met her in the street, when she told me she felt as well as she did before the accident.

The treatment of this fatal and distressing accident has been the subject of much difference of opinion among the learned in the obstetrical art; some advocating immediate delivery by version or by the forceps, when practicable, or by gastrotomy; while others have expressed themselves in favor of leaving the patient entirely to the recuperative powers of nature; contenting themselves by recommending their pupils to make no effort at delivery, but merely to combat symptoms as they arose; and any one who

takes the trouble to read Dr. Trask's valuable monograph on the subject, with his series of cases, (*See Amer. Jour. of Med. Science, January and April*, 1848.) will find that each mode of practice has occasionally succeeded.

But the object to be gained by a numerous array of cases with their results is a knowledge of the mode of management the least likely to increase the danger, and, therefore, the most likely to eventuate in recovery. It is now pretty generally conceded, that the chances of this fortunate result are materially promoted by speedy delivery; either by turning, by the forceps, or by gastrotomy, according to the peculiar circumstances attending each particular case.

To the zeal and industry of Dr. Trask, of Brooklyn, we are indebted for the accumulation and results of 303 cases, comprising rupture from mechanical violence; rupture occurring during gestation, and rupture at the full term; rupture likewise in every degree of severity, partial or complete; in some instances, not involving the peritoneum, and in some cases, confined merely to the neck of the womb.

In this series, there are 128 recoveries.

The following table shows an evident preponderance of fortunate results in favor of gastrotomy.

Gastrotomy, - - - -	saved, 18 - -	lost, 7.
Undelivered, - - -	saved, 18 - -	lost, 50.
Other modes of delivery,	saved, 28 - -	lost, 51.

Dr. Trask makes the following remarks on these results: "We wish to be distinctly understood, that we do not consider that our statistics afford us the actual proportion of recoveries and deaths after the respective modes of treatment.

Few are ambitious to publish unsuccessful cases, and hence the reason of so large a proportion of successful terminations as our series exhibits. But we see no reason why such apparent success should follow gastrotomy, were not its results in reality, in the main, more satisfactory than that of the other modes of delivery. A degree of eclat attaches to its performance, even if it be unsuccessful, far more than to the application of the forceps, to perforation or to version; therefore, there can be no causes tending to suppress the publication of unsuccessful cases of gastrotomy, which do not apply in an equal and ever greater

degree to the other modes specified." With equal truth it may be observed, that the proportion of recoveries in 303 cases, viz., 128, must not, in this fatal accident, be taken even as an approximation to the true proportion of deaths and survivals. We, ourselves, know of three cases of rupture of the womb occurring in this city, which have never been reported, and by making inquiry among the members of the profession, we have no doubt but that many more could be found. The reasons for this silence are obvious. Many are so much engaged that they cannot, or will not, give the time for drawing up a careful report; others, particularly those practising among the lower orders of the community, are afraid of the blame which might, on such an occasion, attach, however unfairly, to themselves, and cases, no doubt, have occurred where the accident has not been detected during the life of the patient, and where a post mortem has not been sought by the physician, or, if requested, has not been granted, and the case has been certified simply as one of sudden death during labor, from exhaustion, disease of the heart, pulmonary coagula, shock, syncope, &c., &c.

But these statistics, though useless as a means of estimating comparative results, are, by the accumulation of so many cases of recovery, highly useful and important. They prove the perfect fallacy of the old doctrine, maintained by such high authority as that of Hunter, Burns and Denman, that the most humane course was to leave the patients undelivered, and trust entirely to the resisting and recuperative powers of nature. They prove incontestibly, what Dr. Dewees has so earnestly asserted, viz., that the do-nothing advocation is opposed to the best interests of humanity; for such cases so treated have almost invariably perished, while they demonstrate, beyond the possibility of cavil, that immediate delivery by one means or another, has frequenlty succeeded under the most desperate and uncompromising circumstances.

On the subject of delivery, or non-interference, Dr. Trask gives us the subjoined results:

"Of 154 cases delivered by artificial means, 97 *died;* 57 *survived.*

Of 89 abandoned undelivered, 65 *died* and 24 *survived.*

Of 31 delivered by natural efforts, 20 *died* and 11 *survived,*

and these include, in both instances, cases of rupture of the os, in which the peritoneum was not involved.

Of 6 in whom artificial delivery was tried and failed, all died undelivered.

A comparison of those delivered by art and of those abandoned undelivered, yields 37 of the former, as saved, to 27 of the latter in the hundred, showing that the chances in the former case are considerably better than in the latter."

In looking over some of the periodicals, we have collected the following additional cases of ruptured uterus, published ulterior to the date of Dr. Trask's memoir :

Cases of rupture of the uterus have recently been reported by Mr. Brownhill, *Prov. Journal, Dec. 29th*, 1849, and by Dr. Smallwood, U. S., *Brit. Amer. Journ., Jan.*, 1848. Both were fatal. Mode of treatment not mentioned.

Two cases of rupture of the uterus are reported by Dr. Mitchell. In the first, one leg had escaped into the abdomen ; the child was extracted, and the woman recovered under large doses of opium.

In the second case, the escape of the child was complete ; gastrotomy was performed after the mother's death, but it is not stated whether the child was saved, though it may be inferred that it was not.—*Obstetrical Record, No.* 13.

A case of recovery after ruptured uterus is also recorded by Dr. Coley. In this instance the fœtus, with the exception of the head, had escaped into the peritoneal cavity. The narrator states that he introduced his hand through the rent, and seizing the feet dragged the body back into the uterus, and so delivered the child.—*Ibid, No.* 11.

Dr. Simpson also describes two cases of rupture depending on hydrocephalic fœtuses, and alludes to the frequent connexion between the two conditions. In confirmation of this he states, that out of 74 cases of intra uterine hydrocephalus collected by Dr. Keith, rupture of the uterus occurred in 16. He further insists on the necessity of immediate delivery when the fœtus is ascertained to be hydrocephalic, and advises puncture of the cranium with a trocar rather than craniotomy.—*Monthly Journ., June*, 1848.

A case of recovery from rupture of the womb, is reported by

Mr. Church, in the Lancet, May 29th. The child was extracted dead, the mother made a good recovery.—*Ranking's Abstract, Jan.* 1849.

A case of extreme rupture is reported by Mr. Long. The child was completely thrown into the cavity of the abdomen. Gastrotomy was performed after some little delay. The operation was borne well, but the woman sank, and died on the third day. No post mortem permitted. Notwithstanding the magnitude of the injury here sustained, Mr. Long was convinced that had the patient enjoyed the benefits of a regulated temperature and the other advantages of regular attendance which a hospital might have supplied, she would have survived.—*Dublin Medical Press, April 17th*, 1850.

Mr. Stobo has recorded an instance of recovery after rupture of the uterus. The nature of the accident was indisputable, as the author felt the intestines through the rent. No mention is made of the child; we, therefore, conclude, that it did not survive.—*Medical Times, April 6th*, 1850.

A remarkable, and, perhaps, unique example of rupture of the uterus, is narrated by Mr. Stolty, in which the entire ovum escaped into the abdomen at full term. The woman died of hemorrhage.—*Gazette Medicale de Strasbourg.*

[Note.—We believe that the above is the only instance in the United States, in which gastrotomy has been successfully performed, in case of rupture of the uterus. In Dr. R. Estep's case, reported by Wm. Bowen, M. D., in the Amer. Jour., Oct. 1843, gastrotomy, was performed for the delivery of a severed head, the body of the child having been previously extracted, per vias naturales. As, however, there existed but a slight rent in the uterus, which had to be enlarged to the extent of five or six inches, the case should be termed, we think, one of gastro-hysterotomy or Cæsarean section.—Ed. Med. Ex]

Two Cases of successful Cæsarean Section. By Wm. H. Merinar, M. D., of Oktibbeha County, Mississippi.

Phebe, æt., 24 years, servant girl of Mr. Wm. H. Glenn, of this county, was taken in labor on the 14th day of July, 1852. A female was called to her assistance, who attended her until the evening of the 17th inst. Finding that the labor did not advance, though the pains were most violent, she requested that I might be sent for. Upon my arrival, at 9 o'clock, P. M., I was in-

formed that the labor had been active from the beginning, and that the waters had escaped the day before. I found on exami. nation the os uteri sufficiently dilated to introduce a finger and with difficulty touch the fœtal head, which still rested above the pubis. By careful examination, I discovered that there was great deformity of the pelvis—its antero-posterior diameter did not exceed two inches.

I informed Mr. Glenn that delivery per vias naturales could not be hoped for, and requested a consultation with Dr. C. P. Montgomery, who was immediately sent for.

At 8 o'clock, on the morning of the 18th, Dr. M. arrived, and, after repeated examinations, fully concurred with me in opinion. There had been no contractions since three o'clock in the morning; the patient lay exhausted and stupid, skin hot and dry, great tenderness over the abdomen, thirst urgent, pulse 124.

We at once decided that Cæsarean section was our only resort, as the position of the child rendered any other operation impracticable, and I agreed to undertake the operation. The condition of the patient being described to her, she, after considerable reflection, and conversation with her husband and father, consented to submit to whatever we thought best for her.

The necessary arrangements having been made, I had a mattress and sheets fixed upon a firm bedstead, and, the head and shoulders being well supported by pillows, I pinched up a fold of the skin and muscles, about three quarters of an inch from, and on a line with the lower edge of the umbilicus, and passed a curved bistoury, with the back downward, through the parts to the peritoneal sac at once. The intestines being held back by Dr. Montgomery, I carried the incision—about five and a half inches in length with a slight curve—to the linea alba, an inch and a half above the symphysis pubis. The womb being exposed, an incision was made through its walls in the same way.

There was a left lateral obliquity of the uterus, and the child corresponded with the second vertex presentation of Baudeloque. The membranes having been ruptured two days before, I introduced my left hand, and, drawing the head to the orifice, delivered a large, but dead, male child. The placenta and membranes were then carefully removed. The womb contracted imperfectly, though sufficiently to prevent serious hæmorrhage.

No vessel requiring a ligature having been divided, I drew the edges of the wound carefully together, and with three silk ligatures, in the form of interrupted sutures, secured them, and gave additional support with adhesive straps, a compress and bandage. I then applied the cold water dressing, and ordered tinct. opii gtt. xlv.

July 19, 7 o'clock A. M.—I visited her in company with Dr. Montgomery. She spent the most of the night quietly, but with symptoms still alarming; bowels moved twice since I left her. Ordered pulv. opii gr. ii., to be repeated if necessary. Water dressing continued.

4 o'clock, P. M.—Lochia established. Other symptoms the same.

July 20, 6 o'clock, A. M.—Rested quietly through the night; skin still hot and dry; thirst urgent; considerable tympanites; pulse 124. Ordered, aquæ calcis ℥ii. every two hours. Flaxseed tea advised in place of water.

5 o'clock, P. M.—No change since morning.

July 21, 8 o'clock, A. M.—Rested but little through the night; mind not so clear this morning as usual; tongue contracted and red; skin hot and dry; thirst distressing; pulse 130. Ordered bitart. potass., a teaspoonful; to be repeated if necessary.—Water dressing continued, with a cold towel on the forehead.

4 o'clock, P. M.—Bowels moved twice; mind clear but anxious; less heat of skin; pulse 124. Cold applications to the head and bowels continued.

July 22, 7 o'clock, A. M. Rested better last night than usual, but complains of severe pain, since 3 o'clock in the morning, in the right hypochondrium; other symptoms the same. Ordered ℞. pulv. opii, gr. ii, ipecac. pulv., hyd. chlor. mit., *aa.* gr. ss. every two hours, with fomentations over the seat of pain.

4 o'clock, P. M.—Pain relieved after the second pill; thirst still urgent; has taken no nourishment since the morning of the 17th.

July 23d, 8 o'clock, A. M.—Rested well during the night; pulse still 124; other symptoms more favorable.

July 24, 9 o'clock, A. M.—Symptoms more favorable; bowels moved once; mind clear and tranquil; thirst subsiding; pulse 118; wound examined; discharge healthy.

July 25, 8 o'clock, A. M.—Slept comfortably until 3 o'clock this morning, when she was disturbed by pains in the bowels, which were relieved by tinct. opii gtt. xlv.; skin soft; thirst subsiding; mind relieved; pulse 112.

July 26, 8 o'clock A. M.—Symptoms improving; has taken a few spoonsful of gruel this morning; pulse 108.

July 27, 9 o'clock, A. M.—Rested well through the night; bowels moved twice; appetite improving; other symptoms favorable; granulations healthy; sutures removed.

July 28, half-past 10 o'clock A. M.—Rested well all night; pulse 104.

July 29, 9 o'clock, A. M.—No change since my last visit; one evacuation from the bowels.

July 30, 8 o'clock, A. M.—Rested well; spent the night comfortably; bowels moved once; skin soft; tongue cleaning off; thirst subsiding; appetite improving; spirits raised with the hope of recovery; pulse 94.

August 2, 9 o'clock, A. M.—Symptoms improving; pulse 88.

August 5, 9 o'clock, A. M.—Rested badly through the night, from imprudence in diet and neglect of bowels; pulse 106. Ordered ol. ricini, a tablespoonful.

4 o'clock, P. M.—Oil moved twice; symptoms all better; pulse 90.

August 8, 8 o'clock, A. M.—Still improving; pulse 78; wound healthy; new dressing applied; but little soreness complained of.

August 13, 8 o'clock, A. M.—No material change since my last visit; pulse 74.

August 20, 9 o'clock, A. M.—Symptoms all favorable; granulations healthy; pulse 70.

August 26, 4 o'clock, P. M.—Still improving; wound healed, except an inch at the lower edge.

September 14, 9 o'clock, A. M.—Wound entirely closed; sits up an hour or two at a time; says she feels no pain or inconvenience from the operation; bowels regular; appetite good.

September 30, 8 o'clock, A. M.—Enjoying perfect health, and attends to her business as usual.

On the 22d of May, 1854, I was called to visit the unfortunate individual whose case I have just detailed, in labor again. Upon my arrival, at 9 o'clock, P. M., I found the pains frequent, and the most violent that I ever witnessed.

I at once requested a consultation with Dr. Montgomery, who was sent for but could not attend, his own family being indisposed. Other physicians were sent for but could not be had.

The pains continued so violent—notwithstanding opiates were freely used—as to threaten danger, and at midnight I determined, with the assistance of Mr. Glenn, again to perform the Cæsarean section. The patient urged me not to wait longer for consultation.

I had a mattress and sheets fixed upon a firm bedstead, and the patient placed upon her back, with her head and shoulders supported by pillows, as in the first case. I then pinched up carefully a fold of the skin and muscles, about midway between the old cicatrix and umbilicus, and, passing a scalpel with the back downwards, cut a small orifice through to the peritoneal sac at once. I then directed Mr. Glenn to press the bowels back by placing one hand on each side of the incision. Carefully introducing a director, and placing the point of the scalpel in the groove, I carried my incision parallel with the original one, until it terminated in the linea alba. The womb being exposed, I made a small incision very carefully through its walls, and passing the director to serve as a guide and protect the membranes from the point of the instrument, I made the orifice to correspond with the one in the abdomen. I then directed Mr. Glenn to press the walls of the abdomen down against the uterus, with sufficient force to cause the membranes to bag externally, and divided them; avoiding, as far as possible, the escape of the liquor amnii into the peritoneal sac.

There was a right lateral obliquity of the uterus, and the child was found to correspond with the first vertex presentation of Baudeloque. I introduced my right hand and passing it carefully around the head, delivered a well grown male child, Cæsar Augustus, who greeted his anxious and distressed mother with the usual salutation. The placenta and membranes were then removed. There was but slight hemorrhage, the womb contracting violently.

I drew the edges of the incision in the abdomen carefully together, and secured them with four silk sutures—interrupted—and gave the necessary support by adhesive straps, a compress and bandage. The cold water dressing was applied, and pulv.

opii. gr. ii. ordered. She became easy in half an hour, and spent the night comfortably.

May 21st, 2 o'clock, A. M.—Dr. S. J. Williams present; resting quietly, skin soft and cool, pulse 96.

2 o'clock, P. M.—No change since morning.

May 22, 8 o'clock, A. M.—Spent the night badly, mind anxious, skin warm and dry, considerable thirst, discharged urine twice, but no action from the bowels, pulse 108. Ordered bitart. potassæ, a teaspoonful every two hours until it acts.

4 o'clock, P. M.—Symptoms the same; no evacuation from the bowels. Ordered ol. ricin., a tablespoonful.

May 23d, 8 o'clock, A. M.—Drs. John McMillan and John M. Rogers present. Spent the night comfortably; lochia established, skin soft, thirst subsiding, mind relieved, appetite good, bowels moved twice, pulse 104, child doing well.

May 24th, 8 o'clock, A. M.—Drs. J. W. Caldwell and J. McMillan present. Slept well except when disturbed by the child, bowels moved once, skin soft, takes nourishment, still cheerful, pulse 100.

May 25th, half past 10 o'clock, A. M.—Rev. J. M. Jones present. Rested well since my last visit; one evacuation from the bowels, pulse still 100.

May 26th, 8 o'clock, A. M.—Rested well through the night, but had this morning a difficulty with her nurse, which produced considerable fever and pain in the bowels, pulse 120. Ordered tinct. opii camph. ʒii., spts. nitre dulc. ʒi. every two hours; cold water continued.

May 27th, 9 o'clock, A. M.—Drs. Rogers and McMillan present. Passed a restless night, skin hot and dry, thirst distressing, mind anxious, violent pain in the region of the liver, no action from the bowels, pulse 126. Ordered ℞. pulv. opii gr. ii., ipecac. pulv., hyd. chlor. mit. *aa.* gr. ss., every two hours with a blister over the pain.

4 o'clock, P. M.—Resting more quietly, but no change in symptoms. Ordered ol. ricini. a tablespoonful.

May 28th, 9 o'clock, A. M.—Oil operated twice, symptoms improved, blister drew well, pain relieved, pulse 114. Wound examined, suppurating sufficiently to produce some smell; dressing renewed, water continued.

May 30th, 9 o'clock, A. M.—Passed the night pleasantly, bowels moved once, appetite good, secretion of milk more abundant, pulse 116.

June 1st, 9 o'clock, A. M.—Rested well through the night, two evacuations from the bowels, no pain and but little soreness, appetite good, adhesive straps renewed, wound still healthy.

June 3d, 4 o'clock, P. M.—Symptoms still favorable, pulse 96, sutures removed.

June 6th, 8 o'clock, A. M.—Still improving, bowels regular, appetite good, pulse 78, Cæsar Augustus still doing well.

June 9th, 11 o'clock, A. M.—Symptoms all favorable, pulse 72.

June 13th, 8 o'clock, A. M.—Doing well, adhesive straps renewed, granulations healthy, water dressing continued.

June 18th, 8 o'clock, P. M.—Mother and child doing well; wound almost healed.

June 28th, 8 o'clock, A. M.—Wound entirely healed, general health good, wants to be up.

July 16th.—Enjoying perfect health, and says she feels no pain nor inconvenience from the operation.

Aug. 28th.—It is now more than three months since the operation was performed. Mother and child enjoy fine health, and she attends to her business as usual.

Case of Amputation above the Shoulder Joint. By D. GILBERT, M. D., Professor, &c. Med. Dept. of Penna. College.

I was requested to visit, on the 29th of June, 1854, David Thompson, æt. 24 years, carpenter, residing on 19th St. above Fairview in this city. Saw him for the first time two days subsequently, June 1st, when he gave me the following history of his case. About the 1st of January last he slipped and fell on the ice, and to break the fall, threw his right arm back and fell upon his hand, which resulted in severe sprain of the shoulder joint. There being neither fracture nor dislocation, he did not apply for medical advice, but made such applications as are common in domestic practice. During this period he continued to work at his trade, without, however, being able to use the shoulder joint freely. Motion at the joint becoming more and more

abridged and painful, he applied to a surgeon for advice about seven weeks after the receipt of the injury. At this time there was considerable tumefaction of the shoulder. His medical adviser requested him to keep the arm at rest, and used counter-irritants to the tumor, and gave sorbefacients and other remedies internally. The swelling, however, gradually increased, the shoulder became more painful, when motion of the joint was attempted, and during the night a dull heavy pain was experienced even when at perfect rest.

I made a careful examination, and found a large globular tumor involving the ends of all the bones forming the joint, extending as low down as the insertion of the deltoid muscle, encircling the humerus, obliterating the axillary cavity, and resting upon the chest opposite to the articulation. The surface of the tumor was evenly rounded and free from nodulation, the integument covering it was unattached and normal in appearance, except a little abrasion of the cuticle and discoloration produced by the counter-irritants used. The body of the tumor was firmly elastic, without the least fluctuation, as if homogeneous in structure. There was some tenderness on pressure, especially anterior to the acromion where the principal part of the injury was sustained. By measurement, the circumference of the tumor, taking the axilla and acromion as points, was found to be $19\frac{1}{2}$ inches, whilst the sound shoulder measured $13\frac{1}{2}$ inches. The horizontal arc of the body of the tumor from the chest anteriorly to the chest posteriorly was $14\frac{1}{2}$ inches; on the sound side 9 inches. A line coinciding with the axis of the lower two thirds of the shaft of the humerus continued upwards through the tumor would have emerged, as near as we could judge, about one and a half inches anterior to the acromion process, showing that the upper third of the humerus which was involved in the tumor had undergone change of form. In tracing the bone up into the tumor, increase in its circumference was clearly evident, and then it became blended with the general mass. When the tumor was steadied with one hand, the lower extremity of the humerus could be moved in all directions, so as to cause the line of its axis at the top of the shoulder, to describe a circumference whose diameter was at least six inches, having the acromion as its centre.

The patient had been, up to this time, able to sit up and even pass from room to room. Since the receipt of the injury, there has been a gradual wasting of the fluids and solids of body, his weight having become reduced from one hundred and seventy to one hundred and thirty-three pounds. His complexion is somewhat inclined to sallowness, but by no means cachectic; his pulse is one hundred and twelve, and quick, appetite and digestion variable, and his alvine evacuations are irregular. There has not been any cough, and the physical signs declare the thoracic organs to be in a healthy condition. Prior to this accident, from his earliest years he enjoyed uniform and uninterrupted good health, and never had a single symptom of scrofulous or any other constitutional disease. Mr. T. is the youngest of thirteen children, none of whom had struma or any form of cachectic disease. Six of these are dead, four died of small pox, one of enteritis, and one of hæmorrhage of the lungs. His father is still living at the advanced age of 76. His mother died it was said, of carcinoma uteri at the age of sixty-three, when the patient was seventeen years old. All his ancestors lived to a great age. His maternal grandmother died recently at the age of over one hundred years. I ordered laxative pills to be taken at bed time, and syrup sarsap. comp. with iodid. potass., in ordinary doses three times a day. Locally tinct. arnica montan., which had been previously used.

June 3d.—Visited patient; find no change worthy of note; sleeps tolerably well, no pain in the shoulder when quiet; bowels were opened by the pills; appetite has improved. Continue treatment.

June 8th.—Pulse 108; bowels have required an occasional pill; appetite continues to be moderately good; fore arm begins to be œdematous; skin over tumor is becoming brawny, in spots as large as a silver dollar; emaciation is evidently progressing; sleep disturbed; irritative fever at night. Continue treatment with grs. v. of Dover's powder at bed time.

June 11th.—Symptoms very much the same; tumefaction increasing; measurement to day 21½ and 16½ inches; brawny spots enlarging; no adhesion, however, between the skin and tumor. At my request, my colleague, Dr. JOHN NEILL, was called in consultation.

June 12th.—Met Dr. Neill; found increase of the unfavorable symptoms; pulse 126; œdema of arm and tumor increasing; general emaciation progressing. Continue treatment.

June 13th.—No material change. Treatment continued.

14th.—Saw the patient in company with Dr. Neill. Finding that the case was progressing steadily towards a fatal termination, there being an increase of all the unfavorable symptoms, the propriety of performing the operation of amputation above the shoulder-joint was considered. It was agreed that the operation afforded the only hope of relief; but the decision, as to the propriety of its performance, was postponed.

I visited the patient daily, found an aggravation of the symptoms, to which severe nasal hemorrhage was added; pulse 132 to 140; night sweats.

18th.—Met Dr. Neill; unfavorable symptoms progressing, softening of tumor commenced. It was agreed, after mature consideration, that the amputation ought to be performed, inasmuch as it afforded the only hope of rescuing the patient from impending dissolution, provided he and his friends desired it, after a full statement of the dangers attendant on its performance; and the doubtful issues involved, even if he should survive the immediate effects of the operation.

19th.—Visited the patient, and made my communication to him. He had anticipated its character, and was prepared to give a very decided answer in favor of the operation. His friends united with him in the urgent request that it should be performed; and consequently, Thursday, the 22d, at 4 o'clock, P. M., was appointed for the operation.

Measurement of the tumor 24 and 19 inches; œdema of fore arm increased.

All necessary preparation having been made, the operation was accordingly performed at the hour appointed, in the presence of Drs. J. Neill, B. Henry, J. M. Allen, W. H. Gobrecht, E. B. Jackson, W. K. Gilbert, F. C. Jaquet, and a number of medical students, in the following manner:—

The patient was placed upon his left side, on a firm table six feet long and two feet wide, provided for the purpose and prepared with the necessary coverings. Dr. Gobrecht using Dr. Bond's instrument for *retroversio uteri* instead of a key, com-

pressed the sub-clavian artery; for which purpose this instrument, on account of its long bent stem, is admirably adapted. Dr. Neill took charge of the arm to be removed, and I took my place above, or rather behind the head of the patient. A mixture of one part of chloroform to three of ether was administered. The operation was commenced by an incision made with a large scalpel, commencing at a point below the middle of the clavicle, and continued forward and downward to a point below the acromion; thence backward and upward, and outside of the spinous process of the scapula, to the middle of this process. The triangular flap thus formed was dissected up; an incision was now commenced at the posterior fold of the axilla, and carried up to the place of termination of the first incision. The muscles under the line of the last incision, as well as the supra and infra spinati muscles, which were laid bare by the dissection of the flap, were now all divided. The amputating saw was applied to the spinous process of the scapula, and this portion of the bone was sawn through obliquely, downwards and forwards to the body of the scapula; and this was next divided above its neck; the clavicle was then isolated at its central point, and cut through with Hey's saw. A middle sized catling was introduced into the posterior incision, and rapidly carried under the coracoid process, and brought out between the divided ends of the clavicle, severing in its course, the sub-scapularis, pectoralis minor and major muscles, blood vessels, nerves and integuments, so as to form the anterior flap; and the amputation was completed.

The subclavian artery was immediately secured by a firm ligature; but so perfect was the compression of this vessel, that no blood was lost by it. Six other enlarged arterial trunks required ligatures. The remaining portion of the clavicle and scapula were approximated; and the upper triangular, and anterior and posterior flaps were brought together over these, and secured by nine sutures, and intervening adhesive plasters; lint wetted with cold water was applied, and the patient carried to bed. The anæsthesia was complete, and so successfully kept up, that the patient was totally insensible to suffering. Only about twenty oz. of blood, principally venous, was lost. Pulse immediately after the operation, was 120; but in two hours after, had increased to 140. Stimulants, anodynes and fluid nourish-

ment having been administered, it again came down to 122; and tranquility, with sleep, took the place of the restlessness which was present soon after the operation.

I might here add the notes which were taken during the after treatment, for the first day, every hour; and subsequently, from four to six times every twenty-four hours, detailing minutely the symptoms and treatment of this case, but they would occupy a large space and add very little that is interesting. There seemed to be a constant tendency to sinking of the vital powers, which in the treatment demanded the free use of stimulants, tonics, anodynes, and a nutritious and easily digested diet. Thus the contest was maintained for a period of eight days after the operation was performed, when the patient sank quietly in death, requesting near the close of life that the attending physicians should be assured that the operation and its effects had been entirely painless, and that he rejoiced that this chance for life had been given to him. A post-mortem examination was not permitted.

The following account of the dissection of the tumor has been kindly furnished by Dr. Neill.

A section of the shoulder, through to the bone, revealed those changes which are consequent upon the growth of a medullary cancer. The deltoid was thin and pallid, and tightly stretched over the tumor, like a fascia; all the tissues exhibited the effects of pressure, distension and infiltration.

The tumor was of that form, which Paget characterizes as soft medullary cancer. The interior was composed of a pulpy, brain-like material; rendered somewhat of a pink color by its great vascularity. The deeper portion, that nearest the bone, was softened almost to fluidity. The head and neck of the humerus were entirely absorbed, and loose fragments, very much eroded, were lying in contact with the upper end of the shaft. The microscopic characters were such as might have been anticipated, with such physical conditions. The cells were very large and numerous, and so filled with oil globules, that the nuclei were often obscured.

Remarks.—This case is in all respects, similar to that of the Hon. J. WAGONSELLER, M. D., late of Selings Grove, Pa., reported in the American Journal of the Medical Science for

Oct. 1847. It is somewhat singular that these the only cases, in which the *operation of amputation above the shoulder joint* has been performed, occurred in the practice of the same individual. I take it for granted, that most surgeons would have had recourse to the same procedure. In both these cases, the advice and full concurrence of eminent surgeons, as to the propriety and necessity of the operations, was given in consultation. In addition to this, numerous medical friends, occupying high positions in the profession, gave to them their unhesitating sanction, prior and subsequent to their performance.

In comparing these cases we find that the exciting cause was the same in both, viz., mechanical injury sustained by the joint in falling. The progress of the disease was more rapid in the last than in the first case. This probably was owing to the difference in their respective ages and previous states of health, which had been impaired for years in the first, while in the latter case it had been unimpaired. All the symptoms considered, the local disease presented more decided characteristics of malignancy in the case of Mr. Thompson, whilst the evidences of constitutional dyscracy were more strongly marked in the case of Dr. Wagonseller. The operation found more reactive power and elasticity of vital vigor in the constitution of the latter, which had been inured to suffering for years, than in the former, which had always been healthy.

In the performance of the operation, the division of the clavicle, in the last case, was deferred until after the spinous process and body of the scapula were sawed through. This greatly facilitated the most difficult steps of the operation, since the diseased mass and shoulder were held clear of the thorax. The time occupied in the performance of the first operation was fourteen minutes; in the last eight minutes. This difference in time, which is important in amputations in general, may be attributed mainly to the anæsthesia, and furnishes another instance of the great value of this discovery to surgery. When my first operation was performed, the anæsthetic agent then in partial use had not yet been adopted by the profession in this city, on account of the secrecy which was maintained in reference to its chemical composition. At the suggestion of the late Prof. Geo. McClellan, who was associated with me in the case, I visited the

office of a respectable dentist of this city and witnessed its effects when teeth were extracted for two young ladies. The insensibility was perfect, but I observed that under the influence of the "*letheon*" the pulse of one rose from the normal standard to 120, and of the other to 130 beats in the minute. This directly stimulating effect, together with the charlatanism which characterised it, influenced me at once not to use it. Soon afterwards, however, it was published to the profession that "*letheon*" consisted of washed sulphuric ether, and then it was introduced into general use. During the winter of 1847–48 the discovery of *chloroform* by Dr. Simpson of Edinburgh was announced, and this soon became extensively introduced as preferable to ether.

The writer of this used chloroform first in the extraction of two teeth before the class of the Medical Department of Pennsylvania College on the 7th of January, 1848, and next day in the amputation of a female mamma in Kensington. The anæsthesia was complete, but a depressing or sedative influence was noticed, and it became necessary to administer ether to restore normal action. Observing this lowering effect of chloroform in other cases, and knowing well that the effect of ether was restorative, I came to the conclusion that if these two agents could be mingled before their exhibition without deterioration or alteration in their anæsthetic properties, great advantage would be the result. I consequently consulted my learned friend M. JACOBS, Professor of Chemistry and Natural Philosophy in the Pennsylvania College at Gettysburg, who at once assured me that in such mixture no change of their original properties would be produced. Consequently in my next operation, which was performed Feb. 10th, 1848, for the removal of a large adipose tumor from the neck of a lady, I used a mixture consisting of four parts, by bulk, of sulph. ether, and one of chloroform, with the happiest results. Since then, in all surgical. and other cases in which anæsthesia was required, I have used the mixture of these two agents. The proportions of these, I have varied according to the supposed vital constitutional vigor present in the patient to be operated upon. In the robust, the proportion of chloroform was increased; in the enfeebled, the quantity of ether greatly preponderated. I append this brief history of my use of these anæsthetic agents, because my first case of amputation

above the shoulder-joint, gave rise to my earliest investigations upon the subject of anæsthesia; and this, subsequently, led to the first use of the mixture of the two agents, which I freely communicated to my professional brethren, and has since been extensively introduced.

On the Elementary Organization of the Brain.

By Prof. Rud. Wagner.

(Nachr. von d. Gött Ges. d. Wiss.—Jan., S. 25.)

The physiology and anatomy of the nerves are already indebted to the masterly and exact investigations of the author for many important contributions, the discovery of new facts and the confirmation of many laws. The expectations excited in us by every new neurological treatise of the author have been most brilliantly fulfilled in the present work.

The author, with his well-known and reliable faculties of observation, has studied the properties and the reciprocal relations of the elementary forms of the nervous centres, and, with his usual acuteness, has deduced therefrom a number of new and astonishing facts and laws. Scarcely at any time, however, has a new law appeared in this branch of physiology that has not met with various opponents, and the greater the novelties the greater has been the opposition. A like fate may well befall the present work. The decussation of the anterior commissure will not be readily given up. Even if the author has deceived himself, or if the majority so consider it, with regard to certain points, yet are we not less convinced of the infinite importance of certain facts, which he brings forward as the results of his wide-spread investigations. He has adjusted, enlarged and established the basis of the nervous centres.

Our attention is directed to the great void in our knowledge of the functions of the individual parts of the brain,—the cause of which lies principally in our want of a physiological anatomy of the brain, but which can never be supplied by the rough method of vivisection. Four methods are pointed out as being those that until now have been applied with much toil, but little result, by many distinguished investigators. Some have studied the structure of the brain by numerous transverse sections in various direc-

tions. Some have sought to follow up, in hardened preparations, the fibres from the spinal marrow. Others have examined, with weak magnifying powers, segments taken from various parts and in various directions; others, again, with high magnifying powers, have analyzed more closely the elementary tissues. Little physiological information has been obtained from the history of evolution and of comparative encephalatomy, which at first promised so much. More may be expected from Pathological anatomy and from actual scientific phrenological studies. The author has made use, in his numerous investigations, of all the above mentioned methods, principally, however, the third and fourth. In investigating the brain structure, he has used, first of all, the human brain, then the brain of dogs, hares, doves, frogs, many fish, particularly the carp and the magnetic ray. The method of measuring and weighing, which he also tried, he rejects, with justice, as being in the highest degree, unreliable and deceptive; the best proof of which is, that Volkman and Kölliker arrived by it at directly opposite conclusions, with regard to the disputed termination of the nerves in the spinal marrow.

The brain contains the following elementary structures, viz:— first, primitive fibres; second, ganglion cells; third, nuclei; fourth, intermediate finely granular masses. The third and fourth can be left out of consideration, since they do not appear to stand in direct relation to the functions of the brain and are not functional nerve elements. The finely granular masses are found in the gray substance between the ganglion cells, where vessels penetrate only, and are wanting where none are present; their amount stands in direct ratio to the number of the vessels. They are intended, apparently, to prevent the dangerous contact of the dilating and expanding vessels, and serve, perhaps, as Henle maintains, as a mother-substance for the ganglion cells, with the contents of which they seem to be chemically identical. The nuclei also do not appear to be functional elements, perhaps only so where they lie in masses; according to the author, they are there analogous to the granules of the retina, not nuclei, but cells connected with fibres, (the ash-colored substance of the cortical portions of the convolutions of the cerebellum.)

With regard to the ganglion cells, the author has arrived, through numerous investigations, at the conviction, that *only stel-*

late multipolar ganglion cells occur in the brain; all the so-called a-polar, uni- and bi-polar, are only mutilated multipolar cells. In the great majority of the groups of ganglion cells of the brain he found a structure in close accordance with the lobes of the magnetic ray. The processes of the ganglion cells are, in part, original sources of primitive fibre, and in part serve to connect the ganglion cells together. The primitive fibres of the brain are of different diameters,—varying from 0.01 to 0.001 millimetre. The author distinguishes 1st, the thickest, from 1-200 to 1-100 m.; 2d, the moderately thick, from 1-400 to 1-300 m.; 3d, the moderately fine, from 1-600 to 1-500 m.; 4th, the fine, from 1-800 to 1-700 m.; 5th, the finest, from 1-1000 to 1-900 m. The thickest fibres occur nearly always as root-fibres of nerves; the finest, generally, towards the cortical substance of the cerebrum and cerebellum; the middle-sized ones scattered generally; the moderately thick generally dwindle to the finest towards their ending in the ganglion cells. All the fibres show axis cylinders. In general, the finest fibres pass only into ganglion cells. The axis cylinder, in fact, being metamorphosed into a process.*

All ganglion cells, from the lower ending of the spinal marrow, through the medulla oblongata and the ganglions of the middle brain, even as far as the corpus dentat cerebelli and the corpus striatus, have, according to the author, the same character and the type as found by him in the magnetic ray. They are of various sizes, variously colored (pigmented) but always provided with 4—6—15—20 processes, which either pass into primitive fibres or into neighboring ganglion cells. In a note he cites numerous individual observations, showing the positive presence of the connections of the ganglion cells by these processes.

Another system of multipolar ganglion cells are found, for instance, in the cortical substance of the cerebellum. The retort-formed ganglion cells are here present, which receive, into their bulbous end one or two moderately fine fibres, whilst, from the

* This latter view is doubtless correct with regard to the optical appearance in the dead brain, but, in our opinion is not the case in life, as it is impossible for us to determine upon the pre-formation of an axis cylinder, since we believe it to be, from many physiological and chemical grounds, a product of coagulation only.—*Funke.*

neck end or process, a great number of very fine wide-spreading twigs are given off, which pass into the finest fibrils. These cells do not appear to be connected with each other; probably each forms a system complete in itself.

The author concludes from these observations: "The following facts appear to me to be established, being the results of extended investigations. The brain and spinal marrow are nothing but massive groups of primitive fibres and multipolar ganglion cells. Combinations of primitive fibres occur only through the interposition of ganglion cells, consequently, all transitions from one primitive fibre to the other take place in the anatomical manner indicated. Gray substance, and its action upon the nerve fibres, is the obscure expression for the clear one—multipolar ganglion cells connected with primitive fibres. All the phenomena of innervation depend upon combinations of single ganglion cells and great aggregates of ganglion cells, acting as peculiar provinces of innervation, of various physiological importance among themselves, and with central and peripheral paths of nerves. The supposition of a transference from fibre to fibre, in the sense of the so-called paradoxical convulsion (Zückung) is not needed. From many reasons, that need not be entered into here, it is improbable in the highest degree; it could only act as a disturbance in the path of the physiological phenomena."

It is to be regretted that the author has not given us a special exposition of these important anatomical facts regarding the individual provinces of the nervous centres; only a few short explanations here follow, concerning some provinces of innervation particularly studied.

The fibres entering through the posterior roots of the spinal marrow unite into three principal bundles. One portion of the sensitive fibre ascends, without uniting itself with ganglion cells, to the brain, producing conscious sensation. Another part unites itself with the multipolar ganglion cells of the posterior grey horns, from whence, in part, fibres ascend to the brain, and in part, pure commissure fibres cross over behind the central canal to the ganglion cells of the posterior cord of the other side. A third portion causes no sensation, but goes to the great ganglion cells in each hemisphere by the corresponding anterior cords, from which fibres pass off to the motor anterior roots.

The author gives the following anatomical foundation for these facts; 1st, direct observation; 2d, the fact that divisions of the primitive fibres are never found in the spinal marrow, but which would necessarily be present if the same peripherical fibre ascended to the brain and at the same time went to the ganglion cell of the anterior cord; 3d, the fact that through the posterior roots more fibres are conducted into the spinal marrow than through the anterior. According to the author *none* of the fibres of the anterior roots go direct to the brain. *All* unite themselves with the great ganglion cells of the anterior horn, from which, part of the fibres pass to the brain, part pass diagonally to the ganglion cells of the other side. The *anterior commissure is therefore no decussation of the anterior cords.*

The necessary consequence of this statement is the acceptation of a system of reflex motor fibres and cells, analogous to the system of Marshall Hall, and the necessity resulting therefrom that there should be, at every point of the sensitive periphery, a sensitive and an exciting fibre. Unfortunately the author does not go further into the proof of this consequence, the necessity of which, to us, is not so apparent as he asserts. We do not venture, however, to criticise the above views, at least not until we know the author's grounds for the same, and for the refutation of the numerous arguments to the contrary. The author assumes, therefore, to proceed in his own words, that there is, in the periphery of the body, a system of simple (reinen) fibres, with geometrical unfolded terminal points, which ascend through the spinal marrow, partly direct, partly through the multipolar ganglion cells of the posterior cord (most evident, for instance, in the gustatory corpuscles of the tongue). The majority of such corresponds with geometrically arranged terminal points in the brain. Inserted between the same, lie in the periphery the likewise geometrically arranged termini of other centrifugal fibres, which, at the same time enter through the posterior roots and have their end points in a corresponding system of multipolar ganglion cells, out of which the efferent motor-fibres, in general lying at the same elevation, proceed, through the anterior roots of the corresponding half of the spinal marrow. In a note, the author totally rejects Pflüger's new doctrine of the sensorial functions of the spinal marrow—principally

because repeated experiments on frogs have led him to other results.*

The author proceeds to show that the arrangements of the structures as shown above in the spinal marrow, occurs again in the medulla oblongata, only more ingenious arrangements are met with, owing to the little space. The arrangements in the brain for the central organs of the senses is more complicated, but quite analogous in its fundamental relations. In the retina the termini of the optic nerve are found explicated like the termini of the sensitive nerve in the gustatory corpuscles, though in a more delicate geometrical manner. Through the tractus opticus pass the central leading fibres of the optic nerve into the corpus geniculatum, in order to unite for the greater part with the ganglion cells. The tubercula quadrigemini are the second series of aggregates of ganglion cells with which the optic nerve unites. From these the fibres pass inwardly, enter into combination with the medulla oblongata, through the lemniscus, unite themselves with the ganglion cell apparatus on the floor of the aquaductus sylvii, and with the nuclei of the oculo-motor nerve, whose ganglion cells give off fibres not only for the corresponding muscles of the eye, but also for the circular muscles of the iris. Finally, the optic nerve

* The reviewer is among those that received Pflüger's paper with enthusiasm, and has not been cured thereof by Lotze's acuteness, nor even by the present work of the author. I have also repeated the experiments on frogs, and am engaged therewith at present; but what I have observed teaches me daily more and more that the reflex action of the phenomena upon a dead mechanism is impossible. Lotze has also perceived this difficulty, and saves himself from the necessary supposal of a mind in the spinal marrow by an ingenious though untenable hypothesis (interesting in psychology but worthless to physiologists,) of a prolonged action of the mechanism of the spinal marrow, exerted by the prior-existing mind: an *after-action* of the intelligence. Lotze starts from the proposition, that the mind is indivisible; that is his axiom, upon which he erects his logical structure. Such a proposition may pass in psychology, but, in physiology, a-priori axioms will not do.

The author points out the identity of the principle of structure in the brain and spinal marrow. This identity can be better used in the support of Pflüger's than Marshall Hall's views. It all depends, ultimately, upon what shall be understood by the term *mind*. An idea that is indeed only too extensive, but which is covered by a veil that the physiologist dares strive to lift in a physiological manner only.—*Funke.*

fibres unite also with the cells of the thalamus, whilst from these, fibres pass into combination with the hemispheres of the cerebrum. The impression taken up by the ends of the retina fibres is therefore delivered to the ganglion cells in the corpus geniculatum, tubercula quadragemini and optic thalamus for preparation, before it is communicated to the cerebrum for the last phase of innervation, in order to enter the circle of mental perceptions as a complete ocular representation.

Thee minute anatomy of the cerebrum and cerebellum teaches us that at least the larger part of the fibres shooting through the crura of the cerebrum and cerebellum, attenuated in certain parts, end in ganglion cells, and particularly in the cerebrum, in the corpus striatum, in the last division of the nucleus lentiformis, and in the corpus rhomboideum; from this apparatus of ganglion cells arise another system of fibres, which seem to produce the reciprocal action of these central organs with the multipolar cells of the cortical substance. The author finally sums up the fundamental relations in the following proposition.

"All the phenomena of innervation in the brain and spinal marrow depend upon one of many proportions of geometrically arranged anatomical combinations of multipolar ganglion cells with one another, and upon the origin of nervous fibres from such cells, denying all direct combination of two or more fibres among themselves. Fine granular substance and nuclei play only subordinate parts.

"The problem for future physiologists is to trace back with the help of new methods, the physiological phenomena through this structure, simple in its elements, but complicated from their infinite numbers and combinations."

It is unnecessary for us to direct attention to the great value of this proposition, the admirable powers of observation of its author being a pledge for its correctness. We do not deceive ourselves in stating that a new era has begun through this work, similar to that created by Du Bois-Reymond for the physics of the nerves.—*Schmidt's Jahrbüch, May*, 1854.—H. P. FUNKE.

BIBLIOGRAPHICAL NOTICES.

Auscultation and Percussion. By JOSEPH SKODA. *Translated from the Fourth German Edition.* By W. O. MARKHAM, M. D., Assistant Physician to St. Mary's Hospital. Philadelphia, Lindsay & Blakiston, 1854.

A Practical Treatise on the Diseases of the Lungs, Heart and Aorta, including the principles of Physical Diagnosis. By WALTER HAYLE WALSHE, M. D., Prof. of Clinical Medicine in University College, London. *Second Edition.* London, Walton & Maberly, 1854.

A Clinical Introduction to the practice of Auscultation and other modes of Physical Diagnosis in diseases of the Lungs and Heart. By H. M. HUGHES, M.D. *Second American from the Second English Edition.* Philadelphia, Blanchard & Lea, 1854.

The advantages derived from an accurate study of physical diagnosis cannot be too highly appreciated, for notwithstanding the continued labors of so many of the older physicians, we may safely say, that all exact knowledge of diseases, involving lesions of the internal organs, and especially those of the thorax, dates from the introduction of this method of investigation. We cannot, therefore, be too thankful to the genius and application of those men, who not only discovered, but almost completed, a system which places us so inestimably in advance of our medical forefathers; and which, by making medicine more and more a science, based on correct observation, gave to its cultivation an impetus, the beneficial effects of which will be felt for centuries to come.

As, however, with all new discoveries, so was it with the introduction of Percussion and Auscultation into practice. At first violently contested, it became soon so popular a method as to cause many of its followers to rely on it exclusively, and to discard altogether the general symptoms furnished by disease. This over confidence in the physical signs, and an attempt at too great a refinement, produced, especially in Auscultation, a tendency to discover separate pathognomic signs

for each thoracic affection. Laennec is, we think, himself to blame for this. Had this great man striven more to ascertain the exact lesions and physical causes, and not so much the diseases which produce the sounds he so admirably described, his influence on the progress of auscultation would have been more beneficial. His great authority retarded also from original investigation, many who felt that some of his views (and hence those at present taught,) needed reforming or confirming in several respects. It was to refute some of the observations and arguments of Laennec, as well as against the tendency of seeking pathognomic signs in auscultation, that Professor Skoda produced his admirable work on auscultation; a treatise embodying the profoundest thought with the closest observation, and one which, to use the language of his translator, Dr. Markham, "will modify many of the opinions of the present day, even should the theories offered in their place be rejected."

Dr. Skoda commences with percussion. Piorry and his pupil Mailliot, have led us to believe that the spleen, the kidney or hepatized lung yield differences in the percussion sound, by which they may be distinguished. This Skoda denies. He states, on the contrary, that the percussion sound emitted by organs not containing air, does not vary: and that even the sounds furnished by fluids, (water, pus or blood,) are in no way distinguishable from those of solids; both giving a dull sound.

The normal sounds obtained by percussion have been variously classed. The simplest division of the sounds is the one of Lænnec, into clear and dull. Skoda distinguishes four varieties, the extremes of which he represents by the following terms:

1. Full—Empty.
2. Clear—Dull.
3. Tympanitic—Nontympanitic.
4. High—Low.

By a full sound, Skoda means a sound such as is normally heard in percussing the stomach, when distended with air. It characterizes the size of bodies, is persistent, and spread, as it were, over a large surface; an empty sound is the reverse of this. The term clear and dull are used in their ordinary signification. By the term tympanitic, Skoda understands the sound heard on percussing the abdomen. High and low sounds are

only varieties of pitch, and are, as he himself admits, but of little value in practice.

The terms full and empty, are not employed by any other author; of their meaning, Skoda says:

"We do not judge of the size of a resonant body, by the strength of the sound which strikes upon the ear; the slightest vibration of a large bell, tells of its magnitude; the loudest ring of a little bell misleads no one, as to its smallness; neither do we judge of the dimensions of bodies from the pitch of their sounds.

There is no good general term to designate that quality of sounds, which characterizes the size of bodies. I believe that in singing and instrumental music, the word full or full toned or sonorous is used; I shall, therefore, borrow the expression, in speaking of the percussion sound. When any one percusses with equal force different parts of thorax and abdomen, he will find that in some places, the sound appears more persistent, and, as it were, spread over a larger surface than it does in others; the first kind of sound, I call the full; the second, the less full or empty percussion sound.

A cavity, superficially situated in the lungs of moderate size, and surrounded by thickened parenchyma, yields a very distinct percussion sound, but of an empty character. The stomach distended with air gives a full, the small intestines an empty sound." (p. 42.)

Now, we must confess, that we do not see any advantage to be derived from an introduction into the nomenclature of percussion of the terms *full* and *empty*. It is true, that a body containing much air, will yield a more persisting and more distinct sound; but to apply this law of acoustics to determine portions of diseased tissue, does not seem to us of much practical utility. Nor can we help believing that it would be a matter of no small difficulty to learn to separate these sounds; to distinguish, for instance, between a clear empty and clear full, or a dull full and a dull empty sound.

The *tympanitic* sound Skoda does not regard as dependant on quantity of air an organ contains, but rather on the amount of the tension of its parietes. If these be stretched, the sound ceases to be tympanitic and becomes dull; while the reverse is the case, if the walls be relaxed. The correctness of this statement may be readily proved by a simple experiment, viz: by percussing a stomach, which is being gradually more and more inflated with air. The more it becomes distended, the duller will the percussion-sound be.

The production of a tympanitic sound, by the relaxation of

the walls of an organ containing air, is sometimes seen in the lungs.

"If the lung contains less than its normal quantity of air, it yields a sound which approaches to the tympanitic, or is distinctly tympanitic. The sound is, moreover, in many cases remarkably tympanitic, even when the diminution of the quantity of air in the lung is the effect of an increase in its fluid or solid constituents; and this, too, whether the lung retains its normal volume, or becomes larger than natural. When the lung is much reduced in volume by compression, but still contains air, its sound is invariably tympanitic." (p. 47.)

This theory of the production of the tympanitic sound, by diminution of the air in the lungs, Skoda further applies to the explanation of the singular phenomenon first described by him, that if the lower portion of a lung be compressed by a pleuritic effusion, the percussion-sound at the upper portion of the thorax becomes distinctly tympanitic. The same phenomenon may be observed at the apex of the lung in infiltrated tubercle. A case came lately under the notice of the reviewer, where this existed to a marked degree. Can its production here also be referred to the same cause? We see no objection to this view.

As abnormal sounds, yielded by percussion, Skoda classes the cracked pot sound, and the metallic sound. For the production of the latter sound (on percussion as well as on auscultation,) he does not regard the presence of fluid as indispensable. He denies, also, the "hydatid" sound of Piorry as a distinct sound; its singularity, he conceives to arise from a peculiar vibration communicated to the finger, while percussing.

The subject of Auscultation is the one next discussed by Skoda. To enter minutely into a critical examination of all the novel doctrines here advanced, would prolong the review far beyond the limits assigned to it. We will, therefore, merely note those points which we deem of more essential interest, and endeavor as we proceed to show, in what the difference between the views of Skoda and of Laennec and his followers consist.

The *auscultation of the voice* is evidently a subject to which Skoda has paid great attention. Naturally, when listening to the thorax the voice is heard as an indistinct humming sound. When from any cause the tissue of the lung becomes denser, either by consolidation or by infiltration, the result of morbid processes,

the voice, instead of being heard as a mere humming, becomes distinct, giving rise to bronchophony or the distinct thoracic voice. This increase of distinctness was attributed by Laennec to the increase of the conducting power of the lung; and this explanation has been received into most of the English and French manuals on Auscultation, with which we are acquainted. But this hypothesis fails to account for all the circumstances observable in the study of bronchophony. Thus, bronchophony is not always a stationary sign, as in the course of a few minutes whilst listening over hepatized lungs it may appear and disappear, without any corresponding alteration, discoverable by percussion or otherwise, being observable in the part. It is further continually observed in pleurisy, that the thoracic voice becomes weaker, as the effusion advances, the reverse of which ought to happen in accordance with the ordinary laws of the conduction of sound. Skoda opposes, however, Laennec's explanations mainly on physical grounds and especially on the ground that sounds are better propagated in the air than by solids. But let us quote his own argument, as rendered by Markham:

"The human voice, and every other sound which is formed or propagated in the air, is heard very indistinctly, or not at all, by a person under water; and a sound in one room passes with difficulty into another, being interrupted by the walls. Any one wishing to weaken his hearing, stops his ears.

On the other hand, the slightest scratching at one end of a long rod may be heard, if the ear be brought in contact with the other: while no sound whatever is audible in the air, although the ear be brought much nearer to that end of the rod whence the sound proceeds. The sound caused by striking two stones together, under water, is distinctly heard there, and even causes a disagreeable sensation; whilst, out of water, it can be scarcely recognized. These facts show that sound does not pass readily from dense bodies into the air, or from the air into dense bodies. Physics also, teach us that sound is always reflected, in passing from one medium into another, and that less sound enters into the new medium than would have been propagated through a corresponding space of the one in which it was originally excited; the more dissimilar the media are, in respect of density and cohesion, the greater is the reflection of the sound, and the less freely does it pass from the one into the other."

Now according to these laws it would certainly follow that the healthy lung is as good or even a better conductor of sound than a condensed lung (since it allows the air or the sound to pass uninterruptedly into the air-cells,) and hence that increased thoracic

voice cannot depend upon hepatized lung being a better sound-conductor.

As the conduction of sound fails to account for the phenomenon of bronchophony, Skoda seeks another physical fact by which it may be explained. It is a well known law of acoustics that vibrations are excited, and even increased in strength, in sounding bodies, when another body of the same pitch has been made to vibrate in its immediate neighborhood. On this principle the fact is explained, that a tuning fork in vibration will excite a reciprocal sound on a guitar string near it, which sound will be increased in strength, if the sounding column divide into a number of shorter parts, each of which will re-produce the original sound. The force of this reciprocation and resonance of sound or "consonance" depends, in an enclosed space, much upon the nature of the walls: a space bounded by solid walls reflecting the sound strongly, whilst one bordered by thin walls will scarcely, if at all, increase the strength of the sound. On this principle Skoda has endeavored to explain the production of the thoracic voice. Naturally, he thinks, the parenchyma of the lung, being neither firm nor tense in structure, is unable to consonate with the voice formed in the larynx or with the consonant sounds of the throat, and of the cavities of the mouth and nose. The air contained in the trachea and bronchial tubes consonates with the voice, in so far as the walls confining it have, in respect to their power of reflecting sound, an analogous condition to the walls of the larynx. As the bronchial tubes pass into the structure of the lung they become thinner and lose their cartilaginous walls. The consonance of the voice must hence decrease as the tubes change their firm structure. Now if by any process the walls of the tubes become increased in thickness, or the tissue of the lung around them condensed and deprived of air, the necessary conditions for consonance with the sound produced in the larynx will be kept up, and the vibrations thus generated, will be reflected as distinct sounds, even through several inches of fleshy parts or fluids, to the surface of the thorax, provided of course the consonance between the air in the tubes and the air in the larynx remain uninterrupted.

Such is in the main Skoda's account of the production of the thoracic voice by consonance. That there are grounds on which

this theory may be opposed, we are aware, but altogether it seems to us the most philosophical explanation of the production of the thoracic voice that has as yet been proposed. The principal objection that can, we think, be urged against Skoda's theory, is, that the laws of sound are as yet too imperfectly understood, to apply the principle of consonance so exclusively to the explanation of a vital phenomenon; but if this application be too general or not, future researches will show; in the meantime we must beg leave to refer our readers for an admirable summary of the objections to this theory to the critical examination of it in the chapter on voice in Prof. Walshe's work.

Laennec divided bronchophony according to its intensity and timbre into simple bronchophony, pectoriloquy and egophony. Skoda, to be consistent to his theory of consonance, admits only a weak and strong bronchophony. This nomenclature is certainly simple, yet its advantages seem to us doubtful, for it will be hard to fix the exact limits of weak bronchophony. The term strong bronchophony is further but another expression for pectoriloquy, since Laennec himself defines this simply as "the voice passing wholly through the stethescope," which he states to occur most frequently by the resonance of the voice in cavities. *Pectoriloquy* or strong bronchophony as a sign of a cavity is strongly condemned by Skoda, and indeed most auscultators now agree on this point. Cases are not of unfrequent occurrence, where a cavity existed without giving rise to pectoriloquy, or in which a post-mortem examination revealed the absence of an excavation, in a spot in which during life the most perfect pectoriloquy has been heard. Dr. Watson* relates an instance of this kind; Latham† and Stokes‡ attribute but little value to this sign: Walshe admits it as a distinct sound, but considers its significance unsettled.

Egophony was considered by Laennec as indicating a moderate pleuritic effusion. Skoda rejects it altogether as a sign of effusion, and affirms that it may be heard in hepatized or tuberculous lung, and normally in old women and children. That egophony may be produced in large as well as in a moderate effusion, was

* Lectures on the Practice of Physic Am. Ed. p. 635.
† Lectures on Clinical Medicine, Am. Ed. p. 112.
‡Treatise on the Chest, Am. Ed. p. 378.

proved by a case published by Andral (Clin. Med. ii. Ob. xxi.); in which this sign was heard, even though the fluid in the pleura was so abundant as to have caused displacement of the heart. Many of the most distinguished of the immediate followers of Laennec have observed egophony in simple pneumonia, although Grisolle (De la Pneumonie), and lately Walshe, most strongly contend against the fact of its occurrence in this disease. Fournet regards egophony as only of real value as a sign of a pleuritic effusion, when it corresponds with other signs, either physical or rational, and such, indeed, is the view which is now generally taken of its significance.

The sounds caused by the motion of the air during respiration, are classed by Skoda under the head of respiratory murmurs, of râles, and of whistling and sonorous sounds. The character of the *respiratory murmurs* may be imitated by drawing air into and forcing it out of the mouth, whilst the lips are in the requisite position to pronounce a consonant and a vowel.

Thus the consonants which answer to the vesicular murmur will be, during inspiration, *v* and *b*; during expiration, between *f* and *h*. The murmurs of the larnyx, trachea and large bronchi, are represented by *ch*, which is combined with the vowel *e* to produce the highest, with the letter *u* for the lowest pitch.

"In attempting to imitate these murmurs, we find that in each case we retain the same consonant, and that whatever difference arises, depends upon a change of the vowel employed. The consonant which answers to these murmurs is *ch*, guttural, for it falls between *h* and *ch*. The laryngeal, tracheal, and bronchial murmurs, may be imitated by forcing air against the hard palate; this is done involuntarily in hard breathing. The pitch of the murmur depends upon the width of the opening through which the air passes, that is, the *ch* appears in combination with different vowels. As a rule, the laryngeal murmur is higher than the respiratory murmur of the lung."

The division of the respiratory murmur adopted by Skoda is very simple. He distinguishes,

1. The pulmonary respiratory murmur.
2. Bronchial breathing.
3. Amphoric echo, or metallic tinkling.
4. Indeterminate respiratory murmurs.

The *pulmonary respiratory* murmur, (the vesicular breathing of Andral), Skoda attributes, with Laennec, to the friction of the air against the walls of the air cells, the contractile power

of which it overcomes. To prolonged expiration, which was considered by Jackson and Fournet as pathognomic of tubercular infiltration of the lung, he assigns but slight importance.

"I am, nevertheless, still of opinion that an increased expiratory murmur—provided it has not a bronchial nor any other character than that proper to it—indicates nothing more than this, that the air, in passing out of the lungs, meets with some obstruction in the bronchial tubes."

Bronchial respiration is accounted for by the laws of consonance, and offers the same indications as weak brochophony. Under the head of bronchial respiration Skoda includes Laennec's cavernous respiration, which he considers, like pectoriloquy, to be a sound of doubtful value, existing frequently without any signs of a cavity being found, and totally inadequate in itself to the diagnosis of an excavation. When the respiration becomes more amphoric, or is accompanied with metallic resonance, Skoda does not deny its being a sign of an excavation of the pulmonary tissue.

That bronchial respiration may occur when cavities exist, and cavernous breathing, on the other hand, be sometimes heard in solidified tissue, is a fact admitted by most observers. Yet on that account to strike from the nomenclature of auscultation a sound, which is so frequently met with, and which differs to the ear so entirely from the ordinary bronchial respiration, does not seem to us advisable. It were better, to avoid confusion, to curtail its significance, but retain the name.

Such respiratory murmurs, which give us no information as to the state of the parenchyma of the lung, Skoda denominates *indeterminate* sounds. These indeterminate sounds have neither the character of vesicular, nor of pure bronchial respiration; they include many of the sounds that we are accustomed to designate as varieties of the vesicular murmur. Now, although we know, that there are certain forms of the respiratory sounds found in so many dissimilar diseases of the lung, as to become of very slight, if of any, value to the diagnosis of the exact condition of the thoracic organs, the introduction of the term "indeterminate" may, in our humble opinion, be productive of great evil, and may much increase the difficulty of learning auscultation. Thus we venture to say that no two persons would be able to agree on the

sound to be called "indeterminate." What to an ordinary auscultator might be an indeterminate sound, would not be apt to be such to the practiced ear of a Skoda, a Louis or a Walshe, whilst we think it not improbable that a beginner would consider all respiratory sounds as "indeterminate." DaC.

(To be continued.)

Manual of Human Microscopical Anatomy. By A. Kölliker, Professor of Anatomy and Physiology in Würsburg. *Translated by* George Busk, F. R. S., and Morris Huxley, F. R. S. *Edited, with Notes and Additions,* by J. Da Costa, M. D. *Illustrated by three hundred and thirteen engravings on wood.* Philadelphia: Lippincott, Grambo & Co., 1854.

The operations of nature differ from those of man in this—that while the works of the latter are open and apparent to us all, the former performs her processes so secretly and by movements so minute and gradual, as to place them entirely beyond the sphere of our vision. And thus invisible must they always have remained to us without the aid of the microscope. By its assistance, however, we have been enabled to enter nature's secret laboratory, her inmost sanctum, and there witness "the very pulse of the machine." No discovery has been more prolific in the results it has afforded. It has greatly extended the boundaries of science, exhibited myriads of existences unknown before, and given us a new revelation of the infinite power and majesty of the Almighty.

Histology, the science which treats of the minute structure of all animal and vegetable organisms, may be said to have had its birth, growth, and attained its present maturity within the last thirty years. Previous to that period it was merely "a disjointed collection of unconnected observations." It became a science, in fact, only in 1838, when Schwann discovered the origin of all organic tissues from a common centre—the cell.

Since that period numerous and zealous cultivators of the subject have appeared, among whom the author of the above treatise, Prof. Kölliker, stands deservedly high. In evidence of the estimation in which he is held abroad, we need only mention, that from among the great number of admirable foreign works lately published, the above manual of human microscopical anatomy has been deemed most worthy of selection for translation by the Syden-

ham Society. This just and fitting tribute to the high endowments of its author, should, in itself, be sufficient to stamp its value to the profession.

It is known to many of our readers that upwards of a year ago, Messrs. Lippincott, Grambo & Co., of this city, announced their intention of issuing a translation of this work. The American editor, to whom the translation was entrusted, had performed more than half of his laborious task, expecting to finish the remainder in about a year, when he first "learned that the Sydenham Society intended to publish an English edition of the work, and that indeed, the first volume of this was ready to be issued. As the time and labor requisite for an original translation would have prolonged the publication of the work far beyond that of the Sydenham Society, the editor did not judge it expedient to delay the appearance of an American edition longer than was necessary. He resolved, therefore, to adopt the translation of the Sydenham Society, and merely to append such notes as he intended to have added to his own edition." We need not say that we greatly regret this unfortunate contre-temps, as we should have been much pleased to have had an American translation of this great work.

Prof. Kölliker makes two divisions of his subject, General Histology and Special Histology. These are prefaced by an introduction, in which the past history of the science, its present position, and the different aids required in studying it, are briefly mentioned. Under the head of General Histology the author treats of, 1st, the elementary parts, simple and compound; and 2d, of the tissues, organs, and systems which are composed of these elementary parts, in obedience to determinate laws. The most important of the simple elementary parts "are the cells, which not only form the starting point of every animal and vegetable organism, but also, either as cells, or after having undergone manifold metamorphoses, make up the body of the perfect animal, and in the simplest animal and vegetable formations (unicellular animals and plants,) even enjoy an independent existence." Thirty pages are devoted to the description of their composition, form, chemical relation, multiplication by division, &c. Under the latter head, the author remarks:

"*A multiplication of cells by division* certainly takes place in the red blood-corpuscles of the embryos of Birds and Mammalia, and in the

first colorless blood-corpuscles of the Tadpole (Remak). It takes place also, in all probability, in the colorless blood-corpuscles of embryos, and in the chyle-corpuscles of adult Mammalia under certain circumstances. In all these cases, we see, in elongating cells, the production of two nuclei from the originally simple nucleus, apparently by division; the cells then suffer constriction in the middle, and contract more and more around the nuclei, as they recede from each other, and at last separate into two cells, each of which contains a nucleus. In the chick we see blood-corpuscles in all conceivable stages of separation, so that at length they are connected only by a delicate thread, and there can be no doubt whatever as to the actual occurrence of this process.

Whether division ever takes place in other cells than these is not yet determined. If it be allowable to explain, by this process of division, the occurrence of constricted cells with two nuclei, we may suppose it to take place in the nerve-cells, which, in young mammalia, are not unfrequently more or less divided or even united merely by a narrow isthmus, and also in the ciliated epithelium cells, which, although rarely, present two or three enlargements lying one behind the other, each with a nucleus. A peculiar kind of cell-development, which is very closely related to division, occurs in the formative cells of the ivory, which as they go on growing, multiply their nuclei and become constricted from time to time, so that whilst the portion next the ivory ossifies, the other serves in a manner as a reserve for the subsequent formation of fresh ossifying tissue."

The description of the different tissues, epidermic, cartilaginous, elastic, connective, osseous, smooth, muscular, transversely striated, nervous tissue of the blood-vascular glands, and the tissue of the true glands, concludes the subject of General Histology. For our author's views on the development of the two forms of connective tissue which materially differ from those which Virchow holds, we refer our readers to pages 85 and 94.

Regarding "Smooth muscular tissue," a special study of the author, a number of interesting remarks are made.

Under the division of "Special Histology," the external integument; the muscular system; the osseous system; the nervous system; the digestive organs; the respiratory organs; the urinary organs; the supra renal glands; the sexual organs; the vascular and the higher organs of sense, are minutely and accurately described. We may mention here, that at the conclusion of each subject throughout his work the author appends a full account of the methods to be employed in its investigations, and a copious bibliographical list of references. This adds very much to the value of the work for students, saving them much

time and trouble. Interesting physiological and pathological remarks, where the subject demands it, are also added.

In the extracts we shall make from this division of the work, we shall mainly indicate those points in which originality is claimed by the author.

THE SKIN. On the subject of nuclei in the fat-cells of the adult, he makes the following remarks:—

The nuclei in the fat-cells of the adult have not, as far as I am aware, yet been observed, excepting by Bendz (Almind. "Anat." p. 122, tab. I. fig. 4), who rarely, very rarely, noticed even two pale nuclei with nucleoli. It is true that Mulder (p. 601), states that they are furnished with one, rarely with two, nuclei, but Donders and Moleschott (*ib.*, p. 602, *et seq.*), upon whom Mulder seemes principally to rely, expressly say that they did not detect the nuclei; nor does Donders (in the "Holländ. Beitr.," I. pp. 57, 61), say anything about nuclei. I *invariably* find them when the fat has partially disappeared from the cell. In cells completely filled, I first distinctly noticed them, in some cases in the marrow, and in the fat-cells in the muscles; but I do not hesitate in the least to affirm their constant occurrence in all fat-cells, since no one can suppose that they are not formed until after the disappearance of the fatty contents."

For the author's anatomical and physiological views on "The tactile papiliæ," to which he has devoted much attention, we must refer our readers to the work itself, the article being entirely too long for our pages. We shall merely extract the following:—

"E. H. Weber has endeavored to demonstrate, in his last able Treatise upon the sense of touch, that it is only the termination of the nerves in the skin, not the fibres in the nervous trunks, which are the mediators of the sensations of pressure, warmth, and cold; and he has expressed a supposition, that tactile organs as yet unknown may exist in the skin. R. Wagner believes that he has, in fact, found these organs in his so-called *corpuscula tactûs*, and he supposes that, composed as they are, according to him, of superimposed membranes, in the interspaces of which a very minute quantity of fluid is lodged, like elastic cushions or a bladder filled with water, they are specially fitted to receive impressions from the epidermis at the extremity which is directed towards it, and to transmit them to the ends of the nerves which lie in and upon them."

"In my opinion, Weber's view of the greater sensibility of the terminations of the nerves in the skin, can hardly be doubted; but, on the other hand, there is no obvious reason, *á priori*, why peculiar hitherto unknown organs should exist to that end; nor why the condition to which we have already referred, the more *isolated course* of the fibres of the nervous tubules in the papillæ and terminal plexuses, their fine-

ness, *superficial position*, and the *delicacy* or *absence* of the *neurilemma*, may not abundantly suffice as an explanation. That Wagner's so-called *corpuscula tactûs*, my axile corpuscles, are not tactile organs in the sense intended by Weber, is easily demonstrable. Independently of the erroneousness of his views of their structure, and of the fact that the nerves are not distributed in them, but only proceed along them, outside, in order, in many cases, to terminate even beyond them—we find *that all the essential functions of the skin are also performed without such corpuscles.* The feeling of warmth and cold, of orgasm, of tickling, of pressure, of pricking, of burning, of pain, are found partly over the whole surface of skin, partly in places where these corpuscles are certainly absent, which sufficiently shows *that they have not in the remotest degree the signification ascribed to them by Wagner.* However, it is not likely that they exist for nothing in those particular localities, in which the sensibility to pressure is the greatest, and which we use especially as tactile organs, as the ends of the fingers, the point of the tongue, and the border of the lips; and I consider them as parts, *which in consequence of their being composed principally of dense, imperfectly-formed elastic tisssue, confer a certain solidity upon the points of the papillæ, and serve as a firm support for the nerves,* in consequence of which, a pressure, which in other situations is not sufficient to affect the nerve, here takes effect. They would, in fact, be organs, like the nails and phalangeal bones, not essential and indispensable to the sense of touch, but only conferring upon it a greater acuteness than elsewhere. If, in this sense, they are to be called *tactile corpuscles*, I have nothing to say against the term, but then the phalanges and the nails, the 'whiskers' of animals, &c., equally deserve the name of tactile organs."

The microscopist will find some highly interesting and useful remarks on the influence of various reagents on the epidermis on page 147, and on the blood globules on page 709.

Muscular System. Our author combats Bowman's views on the primitive particles, "Sarcous elements," of muscular fibre. On this point he remarks:—

"As regards the notion adopted by Bowman, Dobie, and others, that the fibrils are constituted of still more minute particles (sarcous elements), it may perhaps be stated, as the study of development shows, that the fibrils do, in fact, at first appear to consist of separate particles. But the question is, whether in the adult such elementary particles continue to be evident, and this, at present, I am inclined to deny."

On the course of the *primitive muscular fasciculi*, the editor incorporates into the text the following remarks, taken from the author's larger work:—

"It was formerly supposed that the *primitive muscular fasciculi* ran in a perfectly straight direction towards their insertions, without di-

viding or anastomosing; but this is not correct. Recent investigations, made partly alone, partly with the assistance of Dr. Corti, have demonstrated the anastomosis of the fasciculi of striped muscles in the hearts probably of all Mammalia. We observed anastomosing fasciculi in man, in the rabbit, dog, cat, calf, frog, heron, and Leydig has seen them in the ruff. In the Mammalia and in man, they are frequent and extremely delicate, and the anastomosis occurs by means of short transverse or oblique branches extending between parallel fasciculi."

The whole article on the muscular system is most excellent, and will well repay a careful perusal.

The description of the osseous system is very complete, comprising upwards of seventy pages. We would direct particular attention to the author's remarks on cartilage and its ossification. They differ very materially from those of Robin, who is charged by the author with having entirely misunderstood his statement.

The next subject treated of is the *Nervous System.* As most worthy of notice we invite the attention of students to his researches on the axis-cylinder, a mooted question among microscopists.

His conclusions are as follows:

"These are the most important facts connected with the axis-cylinder. The conclusion which may be drawn from them, appears to me, to be simply this, that the axis-cylinder is not an artificial product, but that it must be regarded as an essential constituent of the living nerves. The only objection which can be urged against this opinion consists in the circumstance, that the axis-fibre cannot be seen in living fresh nerves, and that it cannot generally be distinguished, as a special structure, in the interior of the nerve-tubes without the aid of reagents. But it must be remarked that it *can also be brought into view in nerves that are still warm.* Thus I find well-marked projecting axis-fibres at the roots of the cerebral nerves in Frogs just killed, which I have examined as quickly as possible, after the application of a solution of sugar, particularly in those of the optic, trigeminal, and *vagus*, also in the spinal nerves, for instance in the second. I see them under the same conditions in the peripheral nerves of the Frog that have been teased out, and, in these nerves, have on several occasions even distinctly noticed the axis-fibres in the form of convoluted filaments, in larger drops of the nerve-pulp expressed from the tubes."

Under the head of *the Digestive Organs*, we have a full description of the intestinal canal; of the liver; of the pancreas; and of the spleen. On the lingual papillæ, we have the following remarks:—

"The lingual papillæ present many varieties, the following of which are the most important: 1. The *papillæ filiformes are all elongated,*

and provided with very considerable epithelial processes. The appearance of what is commonly called a gastric furred tongue, depends principally upon the growth of the epithelial processes of the *papillæ filiformes*, which, all directed backwards and in close apposition, form apparently a peculiar white coating. If the processes become longer, so that the *papillæ filiformes* measure 1½–2 lines, we have the *lingua hirsuta or villosa*, which is not uncommon in various disorders; and at length forms may be produced, in which the tongue looks as if it were covered with hairs, 4–6 lines long. 2. The *papillæ filiformes possess very small epithelial processes, or none at all*, and are hardly distinguishable from the smaller *p. fungiformes*. 3. *The papillæ filiformes do not exist as special elevations, but are imbedded in a general epithelial investment of the dorsum of the tongue.* Tongues may be observed, particularly in old people, which, without being furred, in some spots or over a large extent, present no papillæ at all, but have either a perfectly smooth surface, or exhibit only a few linear elevations, corresponding with the rows of papillæ which would, otherwise, exist there. In these places we find the epithelium more developed, and beneath it small papillæ, more of the ordinary form. Tongues which, with better developed papillæ present a smooth surface, are again different from these; here the smooth or cracked surface is produced by the papillæ being glued together by superabundant epithelium, mucus, blood, pus-corpuscles, and mucedinous or yeast-like fungi. 4. *The epithelial processes of the filiform papillæ are covered with mucedinous fungi.*"

For his views on the *lacteals* we must refer to pages 513 and 515.

The structure of the liver is very fully described. As regards the commencement of the hepatic ducts, after showing that "The hepatic cells are so arranged in the islets as to form a *network* by the simple apposition of their flat surfaces, without the assistance of any foreign connecting intermediate substance or investing coat," he remarks:

"If, as results from the above analysis, the secreting parenchyma of the liver consists of a *solid network of hepatic cells*, one cannot but be struck with its great difference from all the other glands of the body; and the important question arises, how, with this arrangement, the secretion is conveyed from the interior of the cells, in which we suppose it to be formed, and finally carried away. Anatomy here gives no sufficient reply; for although the ramifications of the hepatic ducts have been traced accompanying the *vena portæ* as far as the hepatic islets, yet, as respects the connection of their finest twigs with the hepatic network of cells, no definite answer has been afforded; and indeed, up to the present time, no satisfactory account even of the structure of the former has been given. Without entering further, in this place, into the distribution of the hepatic ducts, I will only observe, that in carefully made microscopic preparations we not unusually find fragments of

the finer and finest ducts, the *ductus interlobulares* of Kiernan, between the hepatic islets, and readily obtain evidence that they are constructed according to the ordinary type of excretory ducts.

Often as I have sought for a direct communication of the finest canals with the hepatic networks, I have not yet directly observed it; which is, indeed, by no means surprising, if we consider the softness of the parts with which we have to do; but unfortunately the result is a *hiatus* in the minute anatomy of the parts, which can hardly be made good by hypotheses. As such, however, I would offer the supposition, that the finest ducts impinge directly upon the columns of the network of the hepatic cells, as the diagram in Fig. 221 shows, so that their cavity is terminated by hepatic cells: and, judging from the scantiness of the finest branches of the hepatic duct, I believe that such communications exist, in no very great numbers, at the circumference of the hepatic islets.

Whatever view we may take of the connection of the hepatic cell-networks with the efferent biliary canals, it is undeniable that any such connection only takes place *upon the surface of the hepatic islets* and not in their interior, and that, therefore, the bile which is formed here, *must be transmitted outwards from cell to cell.* Such a process of transmission through closed cells, involves, as vegetable physiology teaches us, no impossibilities; but it can hardly take place so rapidly as in those localities where actual canals subserve this purpose."

Upon the import of the changes in the blood-corpuscles of the *Spleen*, whether they are physiological or pathological, he maintains their physiological nature, regarding their disintegration as a normal occurrence; see page 561.

We must pass over his description of the lungs; the thyroid gland; the thymus; the urinary organs; the supra-renal glands; and the sexual organs, though we find much in them that we would like to extract, to arrive at the eye, on many points of which structure he entertains novel views. Of the *retina* he says:—

"The *retina* is a delicate membrane; when recent, almost perfectly transparent and clear, and after death whitish and opaque. It commences at the point of entrance of the optic nerve, with which it is, in part, continuous. Its thickness at first is 0·1 of a line, but as it extends anteriorly it soon diminishes to 0·06, until ultimately, close to the anterior border of the *retina*, it is not more than 0·04 of a line in thickness, and finally terminates quite abruptly. Notwithstanding this various thickness, the following layers from without to within may be evidently distinguished in all parts of it; 1, the *layer of rods and cones* [bacillar layer]; 2, the *granular layer;* 3, the *layer of gray nerve-substance;* 4, the *expansion of the optic nerve;* and 5, the *limitary membrane.* These layers, with the exception of the innermost, which is of uniform thickness throughout, in general become thinner

towards the front, in correspondence with the diminished thickness of the whole *retina*."

These layers and their mutual connections being minutely described, he remarks:—

"In spite of the obscurity which, from what precedes, still hangs over a very important point in the anatomy of the *retina*, physiology may nevertheless even at present draw some useful conclusions from the facts in our possession. In the first place, since the demonstration by H. Müller and myself of its connection with the radiating fibre-system and the 'granules,' the bacillar layer appears in quite a different light from that in which it was previously held, and it is now obviously impossible to regard it, with Brucke, as a catoptric, reflecting apparatus. I look upon the 'rods' and 'cones,' which may also be said to correspond in all chemical characters with the nerve-fibres of the *retina*, and the whole of the radiating fibre-system of the *retina*, as *true nervous* elements; and venture at the same time to broach the bold supposition, founded upon a less established basis, which has been already thrown out, that the 'rods' and 'cones' are the *true percipients of light*, and that they communicate their condition to the fibres of the optic nerve, by means of the direct or indirect connection of their fibrous processes with the former, through which again the impressions are conveyed to the *sensorium*. That the optic-fibres in the nervous expansion of the retina, do not perceive light, appears to me to be proved by the circumstance: 1, that the point of the *retina*, where those fibres alone, and no other elements of the *retina*, are found, viz. at the entrance of the optic nerve, is not sensitive to light; 2, that the optic fibres are *superimposed upon each other in such numbers*, in almost every part of the *retina*, and above all in the neighborhood of the *macula lutea*, that it is impossible that they should perceive light, inasmuch as each luminous impression, owing to the transparency of the fibres, must in any case always affect many of them, and consequently would of necessity give rise to confused sensations; and 3, because the part of the *retina* in which there is no continuous layer of nerve-fibres on the inner surface, that is to say, the 'yellow spot,' is the most sensitive to luminous impressions. Under this notion, the import of the 'rods,' and their remarkable arrangement, would be intelligible, and the almost inexplicable correspondence in the size of the images of the smallest distinguishable interspaces between two objects, with the diameter of the 'rods' and 'cones,' be placed in its true light. I consider it impossible to say anything with respect to the import of the other elements of the *retina*, for although the 'granules' may be compared to minute bipolar ganglion-corpuscles, and their continuity with the radiating fibres is known, this affords as little ground for discussion as to their function, as is given by the knowledge of the fact that the large nerve-cells of the inner layers have numerous processes and probably free terminations."

In the article on the ear, the editor acquaints us in a note

with Prof. Kölliker's recent researches on the termination of the cochlear nerves. The anatomical description we are obliged to omit. He says:—

"Based upon these histological data, Kölliker advances some interesting and novel views with regard to the physiology of the cochlea. The existence of the peculiar nervous apparatus at the extremity of the cochlear nerves, renders it, he thinks, highly probable that this is the only portion of the nerve which possesses the power of receiving sonorous undulations. These undulations reach the cochlea through the fenestra ovalis, and are not communicated, as most physiologists suppose, by the osseous lamina to the cochlear nerve, since the latter lies free in the labyrinth and is unconnected with the osseous zone. The isolated position of the cochlear nerve, its movability and great softness, renders it, Kölliker further surmises, specially applicable to receive the undulations transmitted by the fluid of the labyrinth. Regarding the special function of the cochlea, he is inclined to attribute to it a greater physiological importance, than to any of the other parts of the labyrinth. The free position of the expanded portion of the nerve, and the extent of surface over which its numerous terminal fibres are spread, constitute it, he thinks, an organ of great delicacy of hearing, enabling us to distinguish several sounds at once, and also to estimate accurately their exact pitch. The ganglionic termination of the cochlear nerves, Kölliker concludes, establishes a surprising analogy between the auditory and visual apparatus, since the sensory nerves of both are possessed at their peripheral expansion of a ganglion, which receives the impressions, the nerve-fibres merely serving to conduct them to the brain. (*Vid.* Kölliker, "Ueber die Endigimgen des Nervus Cochlcæ und di Functions der Schnecke," Wurzburg, 1854.)—DaC."]

Our limits have necessitated us to omit many passages we had marked for extract. What we have selected, will, however, suffice to impart some idea of the work. We may say in conclusion, that, throughout his Manual, the author displays not only a perfect acquaintance with the subject, but that there are few questions of either structure or function on which he has not thrown some light. As a text-book on Human Histology for the use of students and practitioners, we regard it, in fact, as unrivalled. For these reasons we strongly recommend it to such of the profession, as desire to inform themselves on the present state of this important department of science.

The translators have faithfully performed their duty, closely yet intelligibly rendering into our vernacular, the author's researches and opinions. Their additions, also, are generally judicious, and add considerably to the value of the work. If dis-

posed to be critical, we might object to the occasional introduction of notes at variance with the text. Such liberties can only be sanctioned by an author's permission, and we have reason to know that in these instances Prof. Kölliker still maintains his own views.

The notes of the American Editor are always pertinent and consist mainly of his own pathological researches; of some recently described facts and opinions of the author; extracts from his former and larger work and of additional sources of reference. The publishers have issued the work in excellent style. Paper, print and illustrations are everything that could be wished.

The Principles of Animal and Vegetable Physiology. A Popular Treatise on the Functions and Phenomena of Organic Life. To which is prefixed a General View of the Great Departments of Human Knowledge. By STEVENSON BUSHNAN, M. D., *Physician to the Metropolitan Free Hospital, &c.*, Philadelphia. Blanchard & Lea, 1854.

The above little volume is the first of a series of treatises, published in London, under the title of "Orr's Circle of the Sciences." The author of it, Dr. Bushnan, is the editor of the series. Owen, Ansted, Latham, and others, are mentioned as original contributors to this enterprise, which has for its object the popularization of science.

The Introductory part of the present volume, attempts "to expound, in brief and lucid terms, the general nature, relations and application of all the chief departments of human knowledge, in order to give the reader, not specially trained in science, a general view of the vast field of enquiry which the Creator has laid open to the lawful exercise of the human intellect."

Forty-four pages are occupied with this exposition. This compass is entirely too narrow for the subject. It is obviously impossible that any attempt to comprise, in so brief a space, the multiform phenomena of mind and matter, however general the description may be, must prove a failure. Superficiality has always been the result of all such endeavors, and the present introduction only adds another example to the truth of the statement.

The second and principal part of the work is devoted to the

"Physiology of Animal and Vegetable Life." It gives us pleasure to commend this summary. It is clearly and concisely written, and accords with the views of the latest and best systematic treatises on the subject.

The work is largely illustrated.

Healthy Skin: a Popular Treatise on the Skin and Hair—their Preservation and Management. By ERASMUS WILSON, F. R. S., &c. *Second American, from the Fourth and Revised London Edition. With Illustrations.* Philadelphia, Blanchard & Lea. 1854.

We can cordially recommend the above little treatise as a excellent popular exposition of the subjects of which it treats. Much useful information to the practitioner of medicine will be found scattered throughout its pages. The important bearing of the skin and hair upon the general health of the system is strongly dwelt upon. The author has succeeded in making it an agreeable work, notwithstanding its scientific character—a a great merit in a popular treatise—the usefulness of all such being greatly enhanced when amusement is blended with instruction.

THE MEDICAL EXAMINER.

PHILADELPHIA, OCTOBER, 1854.

MEDICAL NEWS.

OPENING OF THE BLOCKLEY HOSPITAL FOR CLINICAL INSTRUCTION. At a Meeting of the Guardians of the Poor, held September 5th, to consider and adopt rules for the government of clinical lectures at the Blockley Hospital, and of other business relating to the subject of clinical instruction, the following report was made and unanimously adopted:

The Clinical Officers shall consist of three surgeons and lecturers on clinical surgery, of which the chief resident physician shall be one, and three physicians and lecturers on clinical medicine, of which the chief resident physician shall also be one, who together shall constitute the Medical Board of the Hospital.

The Medical Board shall arrange the period of the service during the lecture term, in such a manner as will be most conducive to the interests of the Hospital.

The Consulting Surgeons shall always be present at every capital operation, and no operation shall be performed unless advised by at least one Consulting Surgeon and the Chief Resident Physician; the consent of the patient thereto being first obtained.

The Consulting Physicians shall always participate in the recommendation to the Board of Guardians of any measures connected with the medical service, provided the measure has been first recommended by the Chief Resident Physician.

The charge of the Hospital and of the Clinical wards shall be under the Chief Resident Physician, who shall see that such treatment as is directed in consultation is faithfully conducted.

The clinical nurses shall be under the supervision of the Chief Resident Physician, in regard to all ward duties.

No patient shall be transferred from the Hospital to the Clinical Wards except by the order of the Chief Resident Physician, and no patient shall be discharged from the Clinical Wards except with the consent of the consulting officers.

All diversity of opinion in relation to the duties of the medical officers, whether consulting or resident, shall be referred to the Hospital Committee.

Drs. Henry H. Smith and D. H. Agnew were appointed the Consulting Surgeons; and Drs. John L. Ludlow and R. T. Coleman the Consulting Physicians.

On the resignation of Dr. Coleman, at a subsequent meeting, Dr. Caspar Morris was elected in his place.

We have received the second annual announcement of the Polytechnic College of the State of Pennsylvania. This excellent school of instruction supplies a want much needed in our country. Courses of lectures are delivered on the different branches, and pupils are practically exercised and made acquainted with them. Every facility is, in fact, afforded to students desirous of becoming acquainted with Mining, Engineering, and the higher mechanical and agricultural arts. So meritorious an institution deserves to be successful.

Dr. Walter Channing has resigned the professorship of Midwifery and Medical Jurisprudence, in the Medical School of Harvard University. Dr. D. Humphreys Storer has been appointed to the vacant chair.

Professor Bartlett, of the College of Physicians and Surgeons of New York, will not be able to lecture during the coming session, on account of ill-health. Dr. J. M. Smith will deliver the course on Materia Medica. Prof. Clark will lecture on Practice, as well as Pathology. Dr. Dalton will give the course on Physiology.

Dr. Sanford B. Hunt, editor of one of our most esteemed exchanges, the Buffalo *Medical Journal*, has been appointed to the chair of Anato-

my, in the University of Buffalo, in the place of Dr. E. M. Moore, resigned.

The corner stone of a female medical college, to cost $125,000, has been laid at Richmond, Va.—*Boston Med. and Surg. Jour.*

Obituary.—John A. Swett, M. D., Professor of the Practice of Medicine, &c., in the University of New York, and well known by his work on the Diseases of the Chest, is, we regret to see by the papers, deceased.

We regret to announce the death of Dr. John P. Hiester, of Reading, aged 52 years. Dr. Hiester was the late President of our State Convention.

Erratum.—In our last number, Dr. Harting was quoted as having used quinidine in ague. It should have been written *quinoidine*—another substance.

Omission.—Under the title of the first article of the present number, should have been written the words, "As read before the College of Physicians."

RECORD OF MEDICAL SCIENCE.

Extract from an article on Dysentery among Negroes.

By Samuel A. Cartwright, M. D.

On a large sugar plantation on the coast, belonging to Capt. Wm. J. Minor, where the cholera appeared about two years ago, a removal of the negroes from one set of houses to another set, (one of which had been built for the purpose,) was twice tried without arresting the progress of the disease at all. At length, after forty had died, being called on to visit the plantation, and invested with full power to do as I pleased, I took about three hundred negroes, sick and well, a mile or two back into a dry, open place in the swamp, where there was no house to be seen, or any preparation begun for building any. The overseer refused to obey until I recorded this fact in the plantation book, with an additional statement over my own signature, that a cloud was coming up, and in all probability there would be rain. Having made the record, I headed the line of march, and, sure enough, the rain came up and all got wet. They encamped in the open air and built fires, although the weather was warm, and some booths were directed to be made over the sick to protect them from the sun and the rain. The ashy-colored, dry skin conjurers, or prophets, who had alarmed their fellow-servants with the prophesies that the cholera was to kill them all, and who had gained, by various tricks and artifices, much influence over their super-

stitious minds, were by my orders, at twilight, called up, stripped, and greased with fat bacon, in presence of the whole camp—a camp without tents or covering of any kind, except some bushes and boards over the sick from the carts that conveyed them to the camp. After being greased, the grease was well slapped in with broad leather straps, marking time with the *tam tam*, a wild African dance that was going on in the centre of the camp among all those, who had the physical strength to participate in it. This procedure drove the cholera out of the heads of all who had been conjured into the belief that they were to die with that disease; because it broke the charm of the conjurers by converting them, under the greasing and slapping process, into subjects for ridicule and laughter, instead of fear and veneration. The next morning, by times, all who had been able to join in the dance the over night, were ordered into the cane-field to work. There were no more cases of cholera, or deaths from that disease after the removal, except one man who had strayed away from the camp, and except also among some half dozen who had been left to take care of the houses, about half of whom died. The removal included not only the negroes, but the horses, mules and dogs, that there might be no excuse for revisiting the houses and haunts of civilized life. They remained in the camp at night, and labored in the fields by day for some six weeks before they were brought back to the houses, and during all that time they enjoyed good health. —*New Orleans Med. and Sur. Jour.*

Treatment of Diarrhœa in Phthisis.—Among the out-patients attending at the City Hospital for Chest Diseases, cases of diarrhœa have been unusually frequent for the last two months, in consequence, no doubt, of the epidemic influence now prevailing. Those occurring to the subjects of phthisical disease have, in many instances, been more difficult to control than usual. The cases not being of the acute or choleraic type, the sulphuric acid treatment has been tried in but few instances. The remedy chiefly relied upon has been opium, exhibited in one or other of the following forms:—In mild cases of relaxed bowels, attended with much irritability of the stomach, the diarrhœa being liable to be set up again by every slight dietetic cause, R. Bism. trisnitr. gr. x., mucilaginis ʒij. vini. opii. mx., acid. hydrocy. dil. mij., aq. pur. ʒj. Ft. haust. ter die sumend. This mixture, continued for a week or two, has often sufficed to relieve the condition alluded to, and enable the stomach to tolerate, not only ordinary plain food, but even the cod-liver oil. In more severe, suddenly occurring cases, R. Pulv. kino co. gr. x., o. n. vel o. n. et m. sum. Patients liable to attacks of sudden and severe diarrhœa have been directed to keep these powders on hand, and take them at once on a re-appearance of the symptom. In many cases of the latter class, Dr. Peacock prefers to the kino a pill containing the acetate of lead and opium (gr. ii., and gr. ss.) given either every night or twice in the day, as circumstances indicate. The employment of the emulsion of mutton suet and milk in cases of irritable bowels is a very favorite practice at this Hospital, and, in the milder class, fre-

quently suffices without resort to other remedies. The patient is directed to procure fresh mutton suet, cut it very fine, tie it loosely in a coarse muslin bag, and let it gently simmer in milk for a few minutes, after which a quantity of the best cinnamon is to be grated in. The quantity taken may depend upon the patient's palate, and it is generally well relished. The cinnamon probably exerts, as an astringent, an important influence, and should never be omitted.

Treatment of Wounds of the Eye.—Modern ophthalmic surgery has very considerably deviated from what used to be the usual practice in case of wounds, either incised or punctured, of the eye. In a large majority of cases it was formerly considered necessary to employ pretty active antiphlogistic measures in order to obviate the much-dreaded effects of inflammation. As a consequence of this habit, frequent examinations of the organ, in order to watch what was going on, became necessary. It is now known that, in all such cases, there must of necessity follow considerable inflammation. A degree of congestion and the effusion about the injured parts of much soft lymph are, therefore, looked upon as matters of course, and as stages of the healing process not to be interfered with. The great principle of the treatment which we see pursued at the Royal London Ophthalmic Hospital is to keep the injured organ completely at rest. Almost every one is experimentally familiar with the degree of comfort, in cases of slight scratches of the eye, or when dust has got into it, which is afforded by gently supporting the closed lids with the hand. So long as the lids are kept close and still, the pain is absent, but the moment any movement is attempted, a sharp stab of pain is caused. By extending the knowledge thus gained to the more severe injuries, we arrive at the principle alluded to. The following is the detail of the measures usually adopted at the Institution named.—On the patient's first application, the eye is carefully inspected; if any foreign matters are discovered, they are removed; if any portion of the front of the cornea have been partially detached, or if any considerable portion of iris have been protruded so as to be irreducible, the piece is snipped away by means of small scissors. It is rare that anything can be done in improving the position of the edges of the wound, or in returning protruded structures; and the next step is, therefore, to close the lids, and, having carefully padded them with layers of cotton-wool, the whole is confined by strips of adhesive plaster. A mild dose of aperient medicine is generally given, and the patient directed to live carefully on a rather less stimulating diet than ordinary. Unless urgent symptoms make it necessary earlier, which is very rare, the eye is not again inspected for several days, or perhaps a week, when the dressings are cautiously removed and replaced. It is very infrequent indeed for any depletory measures, either topical or general, to be deemed necessary. The symptoms which would excite alarm, and be held to indicate the necessity for further examination, are severe tensive or throbbing pain in the globe, or general fever; and, in the absence of both these, it is judged certain that interference cannot

be needed, and that frequent inspections of the organ could but be productive of injury.

We may remark, that the plan of padding the lids and keeping the eye closed is by far the best which can be pursued, after the removal of dirt, etc., from the eye, or after slight injuries to it from blows or scratches. Under such circumstances it is rarely required more than a day or two.—*Med. Times.*

Malignant Pustule. By E. D. Ayres, M. D., East Creek, N. Y.—The description of "*A peculiar form of Malignant Inflammation of the Lips and Face, resembling Malignant Pustule,*" by Prof. Parker, in the May number of your Journal, attracted my attention, from the close analogy borne by some of the cases therein described, to an affection which I have several times encountered within the last year. As the description given by Prof. Parker is so applicable to the disease as I have met it, the difference in the treatment, and the fatality of the disease, are the only objects of this communication.

The *first case* that I saw, occurred in the practice of a neighboring physician, and from its malignant type, alarmed his friends, and counsel was desired. I was sent for, and arrived in the evening of the 10th of September last. I found the patient, Mr. B——n, 31 years of age, a farmer of temperate habits and good constitution, with the inferior lip greatly swollen, everted, and of a livid hue, the lividity extending to the mouth and fauces, and the tumefaction to the upper lip, and downwards to the pomum Adami. The tongue was moist; there was considerable dyspnœa, and difficulty of deglutition. The pulse was rapid, but small and fluttering; and the patient had been greatly alarmed, but on the subsidence of the pain had become composed. The attending physician was not present, but from the urgency of the case, I was induced to lay freely open the tumefied lip, and ordered yeast poultice to be applied. I followed this immediately with hot brandy toddy, which was directed to be continued with a powder of two grains of quinine, and four grains of carb. ammonia, given once every two hours, and calomel, two grains, every four hours. The affection had made its appearance in the form of a pustule, some three days previously, and, as in Prof. Parker's first case, was situated just below the vermillion border. It was attended with a burning, smarting sensation, which, as the livid, tumefied areola made its appearance, changed to a steady, intense pain. It was now a hard tumor, without pain, and almost insensible to the touch, resembling at once, erysipelas and carbuncle, and differing essentially from both. The treatment as above directed, was continued thirty-six hours, with decided benefit, the patient evidently gaining strength. There was now added a few grains of the pulv. Doveri to the calomel, as somewhat severe catharsis had supervened.

This treatment was continued twelve hours longer, when slight ptyalism being apparent, it was suspended, as also the brandy. Beef tea, nourishing broths, the quinine and ammonia, were administered for twenty-four hours longer, when the patient was considered beyond danger. He rapidly recovered on nourishing diet.

The *second case*, Mr. C——r, by occupation a carpenter, 35 years of age, temperate, had previously enjoyed good health, was attacked with symptoms similar to the first case. The dyspnœa and dysphagia were not so prominent, and the pustule had made its appearance below the angle of the mouth, on the right side. The tumefaction confined itself, principally, to that side of the face and throat. The period of incubation was longer, the pustule having made its appearance some five days before the occurrence of alarming symptoms. The pulse was 64 and small, and the tendency to death by asthenia, marked. This case was treated like the first, but rather more vigorously; he took three grains of quinine and six of carb. ammonia, every two hours, for the first twenty-four hours. The alarming symptoms subsided in 72 hours, and he resumed his labor in eight days from the time of the first attack of distressing symptoms, and has since remained in good health.

I have seen, during the past winter and spring, three other cases, exactly similar to the above, and have heard of several deaths occurring in the practice of neighboring physicians, from a disease bearing the same description, and doubtless the same disease. But in no case can I learn that death followed the early and vigorous application of the tonic, stimulant, and it may be antiseptic plan.—*New York Journal of Medicine.*

Local Anæsthesia by Chloroform—Failure—Disappearance of the Patient.—Having read the accounts in the Peninsular and other journals of the power of chloroform topically applied to produce local insensibility, I determined to embrace the first opportunity to try it, and if successful, as I doubted not I should be, I was resolved to devise means of using it thus in every case where it was possible, and thus diminish the risk of having a patient drop from my hands into the grave, in the sudden and appalling manner which sometimes occurs. The first case which I deemed a proper one, came under my notice last December. The patient came into my office limping, and on withdrawing his boot, showed me one of those common cases where the nail of the great toe grows into the flesh so as to produce a very painful swelling, rendering walking and wearing of the boot intolerable. After examining it, I recommended the operation which has lately come into use for such cases, viz., slicing off the projecting mass of flesh from the side where the nail was imbedded. The patient inquired if it would hurt? I informed him that it would. He then asked advice about taking chloroform. I told him that for so slight an operation it was not advisable to run the risk of taking it internally; but that I would apply it externally, so as to destroy the sensibility of the toe alone, and thus save him from both pain and danger. I then proceeded, according to the directions which I had seen published, to produce the local insensibility. I dipped some lint in chloroform and wrapped it round the toe, and then enclosed the whole in oiled silk to confine the vapor. The results were ludicrous. In the first place, I found that oiled silk will no more confine the vapor of chloroform than a sieve will confine water, or flax fire. It crumbled to

pieces almost the instant the vapor touched it. Failing in this, I took a wide-mouthed vial, and thrust the toe with its envelope, into it, and thus succeeded in securing a close atmosphere of the fluid around it.

I now waited with great confidence for the wished-for insensibility to pain, but was doomed again to disappointment. The surface exposed to the vapor soon began to smart and burn most intolerably. I exhorted the patient to bear it coolly, assuring him it was a sign that the agent was taking effect; that the smarting would soon subside, and be succeeded by a pleasant quietness. Thus encouraged, he bore it manfully for some time, but still it increased to such an extent that at length human endurance could bear it no longer; and in spite of my remonstrances, he tore off the coverings to get relief. I was astonished at such a result, after the accounts I had read, and still thought that it must be owing to the tender and irritated state of the skin, and that I should certainly produce insensibility if I could induce the patient to submit a little longer. With this view, I deadened the sensibility of the surface by rubbing it over with nitrate of silver, and then re-applied the chloroform. This at first worked admirably. The vapor no longer produced pain, and the patient's countenance lighted up with joyful expectation. Soon, however, the smarting began to return, but rather slowly, and I made up my mind that I should now succeed; but as time was passing away, and I had other patients to visit, I told my present one to remain quiet while I was gone; gave him the chloroform bottle with directions to add a few drops every ten minutes to the dressing, and that I would return in an hour, by which time the insensibility would be complete, and I would proceed to operate.

After about an hour, I returned to my office. There sat the patient writhing with anguish in his chair, still resolutely holding his toe in the vial and adding new chloroform every ten minutes according to directions. I asked him if he felt easy yet; he informed me in very explicit language that he did not, and that he had as lief hold his toe in the fire. As the application had now been continued two hours, I gave it up, half provoked and half laughing at my egregious failure. I took off the dressings, and satisfied myself, by examination, that the skin retained all its sensibility to external touch. I informed the patient that I had not succeeded in producing insensibility, a fact of which he was already well aware; whereupon he drew on his boot and departed, since which I have not seen him.

Whether my failure was owing to my ignorance of the proper cases adapted to such treatment; or of the proper mode of application—or whether the local anæsthetic power of chloroform is a delusion, I am not able to say. If the experience of any physician who reads this has been different from mine, I hope he will communicate it to the world; for if the local anæsthesia can really be obtained, it is a discovery of the utmost value, and should be made public, with such details as will enable all practitioners to avail themselves of it.—*Boston Med. and Surg. Jour. from Peninsular Jour. of Med.*

Extract from an Article on the Comparative Pathology of Post-partum Hemorrhage. By JOHN BREMNER, Surgeon.

Previous to having obtained a more intimate acquaintance with the anatomy of the gravid uterus in the inferior creation, and the experience of Mr. B. (Barlow, assistant Professor of the Edinburg Veterinary College) to the contrary, I had been inclined to imagine that the absence of post-partum discharges of blood depended in a great measure on a more effective state of uterine contraction than was generally met with in the case of woman; and would consequently be found of more frequent occurrence amongst domesticated animals whose muscular system had become relaxed from confinement to the stall before the termination of gestation, than others roaming at greater freedom, or altogether in the wild and migratory state. Laying aside the fact, however, that in the cow, at least, a period varying from eight or nine hours to several days is sometimes required for the discharge of the secundines, an inspection of the structure of each of these apart serves fully to dispel all doubt on the subject, and to assnre us that no such casuality can take place in the healthy and complete state of the organs and their appendages. A question, however, of no trifling importance here presents itself for our consideration.

As post-partum hemorrhage is known from time to time to occur amongst quadruped animals, occasionally in such profusion as to prove destructive to life—What are the circumstances under which it has been found to have taken place? The experience and testimony of Mr. B. on this department of the inquiry seem most decisive; he commences with stating, "I have not any recollection of a case of hemorrhage after delivery, wherein this (the delivery) was effected by the animal herself."

After making allusion to the difference of opinion entertained by different veterinary surgeons on this subject—which he has no hesitation whatever in ascribing to the imperfect manner in which post-mortem examinations are conducted, frequently to their entire neglect—he writes as follows:—"My own practice, which has been very extensive, goes to show that in *every case* where post-partum hemorrhage in domestic animals has terminated fatally, and wherein careful post-mortem dissections have been made, a visible lesion, rent, or wound, has been found in the uterine surface. In no case do I remember fatal hemorrhage to have occurred without injury of the placenta, notwithstanding that almost every fatal case has been minutely examined into for many years past." In a succeeding part of his communication he again states:—"I have often known death follow, apparently as the result of this cause (placental hemorrhage), but on dissection have always found some rent, or lesion of surface, in which vascular trunks were involved;" and immediately adds, "I have seen cases, but not very numerous, in which hemorrhage took place after delivery, and was overcome by treatment. In these, however, almost entirely without exception, artificial mechanical means, and often unskilful violence, were used in extracting the fœtus." In reply to the query presented to him as to whether hemorrhage might be more commonly met with in very young than more aged animals, his language in substance is as has been already transcribed, and where in

conclusion he further states, "However exhausted by parturient efforts, I never knew hemorrhage occur which could be supposed due to that state, and the attendant want of uterine contraction. A few ounces of blood are often lost at healthy parturition, and this comes entirely from the ruptured navel string, which you are aware we do not tie."

As proof of what he has here advanced, Mr. B. alludes to the fact that, amongst cows, the womb frequently becomes everted soon after the birth of their calves, and prior to the expulsion of the membranes, &c. "Before the uterus can be returned," adds he, "the membranes require to be detached from the numerous cotyledonous surfaces. In effecting this, a gray or rather milky-looking fluid appears on the uterine and fœtal points of separation; but unless unskilful violence be used, and presuming all to be healthy, I never saw any blood." "In the mare," says he, "I never saw a case of post-partum hemorrhage, unless, as I stated regarding the cow, it depended on actual rending or lesion of surface, not due to separation of membranes." The same intelligent and scientific practitioner favors us with the results of his experience in a case of cæsarean section, in which he operated upon a bitch in the month of August last. "The animal," he states, "was small, but the puppies large, on account of her having connection with a large dog. She had been in labour for two days, and being much exhausted, the pains were entirely ceased. On laying open the uterus, a dead fœtus was found impacted in the os uteri and swollen vagina; four other fœtuses were extracted alive, enclosed in their membranes, which, of course, required to be detached from the surface of the uterus. It immediately collapsed, but did not contract. The mother was preserved alive by means of stimulants for about four hours; the puppies sucked. She remained in a state of collapse, but still there was no contraction nor hemorrhage. On dissection, the womb was flaccid and collapsed; but making allowance for what had been removed, there did not seem to be any contraction. I carefully examined the placental surface: there was not any hemorrhage." Several similar cases, he informs us, were attended with the like results. As still farther tending to develop the physiological history of the gravid uterus amongst inferior animals, compared with woman, it has been deemed proper, along with the lengthened extracts already presented to the profession from the pen of this gentleman, to add the following very important paragraph. In reply to the query, Had he ever met with or known of any case where the placenta, was extended over the uterine orifice, he thus states:—"I never saw or heard of a case wherein the placenta was attached over the entrance of the womb in quadrupeds. In all the cases of parturition I have witnessed, hemorrhage before delivery has never been observed; and in the many cases of abortion in cows and mares which come under our notice, no discharge of blood ever occurs before the fœtus is expelled."—*Edinburgh Medical and Surgical Journal.*

Hypertrophy of the Nose; Cure. By Mr. Bickersteth, of Liverpool.—One of these shocking cases of deformity came under my care in June, 1853. The subject was a fine hale man, aged 68, who said his

nose had been the ruin of him, and begged I would "cut it off altogether, for he could stand it no longer." It was certainly of a very large size, covering a considerable portion of both cheeks, and hanging over his mouth, so that he could not eat or drink without first lifting it out of the way with his hand. The poor fellow had formerly been in a merchant's office, but was dismissed nearly twelve years ago as his nose was then beginning to assume a disreputable appearance. Having saved some money, he opened a public house, trusting his customers would be less fastidious than his late employers, and for a few years his affairs prospered; but at length, as his nose got larger and larger, his shop was gradually deserted, and he was obliged to give it up. Although a very sober man, he was regarded as a warning of the consequences of free drinking, and his oldest customers preferred to spend their time elsewhere. After this he tried to get all sorts of employment, but without success. One look at him was enough. His nose condemned him. The children cried after him wherever he went. Broken-hearted and disgusted, he lately remained altogether indoors, existing on the charity of his neighbours. The day before I saw him he had ventured out a short distance from home, but was "hooted at" by the children, and was obliged to retreat. In a fit of desperation, he then "determined to have his nose cut off, even if it should cost him his life."

The tumor consisted of a blue-colored mass as large as a closed fist, growing from the point and both alæ of the nose. It was divided into three principal lobes, and each consisted of numerous smaller lobules, which were rough and marked with deep pits and eminences, the orifices of sebaceous ducts.

He was admitted to the Erskine-street Hospital, and on the 15th of June I cut the whole of the tumor off with a bistoury, taking care, with my fingers in the nostrils, to go as near as possible to them without wounding the cartilages of the nose. Afterwards I clipped off with a pair of curved scissors a few projections that remained, and made both sides as symmetrical as possible. The bleeding was rather considerable at the time, but soon stopped under the influence of cold and pressure. Three or four of the larger vessels were secured by ligature.

In the course of three or four days suppuration was established, and the dressings being removed, zinc lotion was applied over the raw surface. Cicatrization quickly took place, and in a fortnight he left the hospital with wonderfully little deformity.

A year has now elapsed, and there is no appearance of a return of the disease. The nose is perfect in its shape, and the new cuticle covering it is quite as smooth as the skin on any part of the face. But for previous knowledge, it would be difficult to suppose anything had been the matter with his nose. With the loss of the deformity, the man has regained his character, and has now no trouble in obtaining constant occupation.—*Monthly Jour. of Med. Sci.*

A London Fever-hole.—A correspondent to a daily paper, (*Daily News*, Aug. 16th,) in alluding to the low parts of St. Clements Danes as

"London fever hole," thus draws the abode of many Christian men and women of "Merrie England :"—

"A track through the heart of the Black Forest, or a pass through the bowels of a mountain in Arabia Petrea, could not be more close and gloomy. You might walk here in a good stiff hurricane, and hardly know it; a summer shower might pass, and leave you dry. You are in the region of perpetual shadow; and the women and children who sit or sprawl upon the door-steps are scarcely less in doors than when languishing in their dark and fetid rooms. And no wonder; for, according to actual measurement, the courts vary in breadth from six to twelve feet. Here are the holes in which our human fellow-creatures swarm like vermin. According to a report published in the *Daily News* of May 1st, no less than fifty inmates were found to reside in one of the houses in Middle Serle's-place, (formerly Little Shire-lane;) and in Shipyard many of the houses are built back to back, entirely preventing thorough ventilation. The gentlemen who made the examination state that water-butts are kept in underground cellars, the walls and flooring of which are continually damp to the touch, and where the water, imbibing the filthy exhalations of the place, acquires a dreadful odor; that the ceilings of some of these cellars are actually below the level of the roadways, so that the inhabitants are obliged to burn candles through the whole day, with the exception of a few hours, and that terrier dogs are kept in many of the houses as a protection against the rats. Yet out of these hideous tenements considerable sums of money are drawn every year by letting and sub-letting. Hideous women, foul and slatternly, loll out of windows or lean against door-posts, overcome with the terrible lassitude and indolence which cannot fail to arise from the influences by which they are surrounded; not impudent and brazen, but oppressed with the hopeless burden of their lives. The children, sullen, dirty, and fierce,—young tigers without their beauty or their health,—play or fight in the roadways, amidst cabbage-stalks, potato-peelings, oyster-shells, and standing puddles. Men are very seldom seen. And over the young and the old tower the melancholy house fronts, shutting out the sky and the breeze, and black and saturated with the pestilent vapors which, rising unseen around them,

Hang their poison
In the sick air."

Lancet.

On the Suppression of Hæmorrhage in Cancer Uteri. By Thomas Thomson, M.D.,—I have lately been attending a case of scirrhous ulceration of the os uteri, accompanied by occasional hæmorrhages of an alarming extent, to arrest which I applied pledgets of lint to the bleeding surface, and used styptics of various kinds; but the result was by no means satisfactory. About three months ago it occurred to me to employ injections of creosote; and, at the same time, to paint the ulcerated neck of the uterus with a strong emulsion of creosote and alum. This had the effect of completely controlling the hæmorrhage, as well as

of destroying in the discharges all fetor, from which latter annoyance both my patient and her friends had experienced great inconvenience.

I began the treatment with a very weak emulsion, and gradually increased its strength. At first I used half an ounce of creosote to eight ounces of mucilage of gum tragacanth. A tablespoonful of this mixture was added to pint of water, and injected into the vagina, after having first well washed the passage by injections of cold water. When I could not otherwise control the hæmorrhage, I several times introduced a bivalved speculum, and painted the ulcerated surface with a small sponge saturated with a very strong emulsion, and then passed a round pledget of lint soaked in an emulsion not so strong, and pressed in on the parts. The result exceeded my most sanguine expectations.

Two gentlemen, who attended the case with me, agreed in the good results of this plan of treatment, and expressed their determination to give it a fair trial on the first opportunity.—*Med. Times.*

Abstract of Meteorological Observations for August, 1854, *made at Philadelphia, Pa. Latitude* 39° 57′ 28″ *N., Longitude* 75° 10′ 40″ *W. from Greenwich.* By PROF. JAMES A. KIRKPATRICK.

1854. Aug.	Barometer. Daily Mean	Barometer. Mean Daily Range.	Thermom. Daily Mean	Thermom. Mean Daily Range	Dew Point 2 P M.	Rain.	Prevailing Winds.	General Remarks.
	Inches.	Inches.	Deg.	Deg.	Deg.	Inch.	Points.	
1	29.925	.083	84.0	5.7	71.0	0.018	SW.	Clear; *rain* previous night.
2	29.796	.129	83.5	5.7	60.0	0.058	SW.N.	M. and ev. clear; aft. cloudy, with *rain*.
3	29.883	.087	75.0	6.3	54.0		(Var.)	Clear.
4	29.720	.164	79.0	4.3	60.3		W.	M.&A. cl'y; E. cl'r. *Bar. lowest* 29.701 in.
5	29.793	.074	78.0	2.0	53.3		W.	Clear.
6	29.818	.025	80.0	1.2	49.7	0.210	NW.W.	M. & A. cl'r; E. cl'dy, with *rain*, th. lt'g.
7	29.913	.095	66.0	13.2	51.3	0.040	W.	Cloudy; aft. showery.
8	30.029	.116	65.5	6.7	49.3		N.	Clear. *Therm. lowest* 56°.
9	30.050	.022	70.0	3.3	46.3		NE.	Clear.
10	30.021	.030	68.0	2.0	61.3		NE.	M. and aft. cloudy; ev. clear.
11	29.981	.053	72.0	4.5	62.7		NE.SE.	Cloudy.
12	29.918	.063	80.0	6.8	67.3	0.012	SW.	Cloudy; ev. and night drizzling.
13	29.793	.125	83.0	2.7	57.3		SW.	M. cloudy; aft. and evening clear.
14	29.921	.128	77.0	6.3	50.3		NW.	Clear.
15	29.874	.109	75.5	3.7	64.0	0.005	(Var.)	M. hazy; aft. cloudy and driz'g; ev. clear.
16	29.902	.073	75.0	3.0	45.7		NW.SW	Clear.
17	29.916	.015	72.5	4.7	61.0	0.005	(Var.)	M. drizzling; aft. cloudy; ev. clear.
18	29.991	.074	71.0	5.3	52.0		(Var.)	M. and aft. clear; ev. cloudy.
19	30.022	.033	75.5	2.0	60.0		NE.	M. and aft. cloudy; ev. clear.
20	29.946	.076	76.0	3.0	54.7		SW.	Clear.
21	29.982	.052	78.5	3.0	53.3		SE.	M. and aft. cloudy; ev. clear.
22	29.902	.080	84.0	4.7	55.7		SW.	M. clear; A. & E. cloudy, th lt'g. *Therm.*
23	30.059	.157	73.5	10.3	51.3		NW.E.	Cloudy. [*hig'st* 95°.
24	29.938	.133	73.5	2.3	63.7		SW.S.	Cloudy; very heavy dew at night.
25	29.923	.092	82.5	6.7	59.0		(Var.)	Cloudy.
26	29.910	.044	81.0	5.0	62.0	0.560	(Var.)	Cloudy; ev. rain, th. lt'g. and high wind.
27	29.908	.070	79.5	2.0	67.0	0.010	NE.	Cloudy; aft. shower and then drizzling.
28	30.124	.215	70.0	5.0	56.7		NE.	Cloudy.
29	30.169	.046	67.5	3.3	51.7		NE.	Clear
30	30.135	.038	67.0	1.0	46.7		(Var.)	Clear. *Barom. highest* 30.185 in.
31	30.074	.058	76.0	8.0	59.0		W.	Cloudy; very heavy dew at night.
Means for Aug. 1854	29.946	.083	75.5	4.6	56.7	0.918	N. 81° W. 21—100.	
Means for Aug. 1853	29.913		74.8		59.3	3.080		
Means for Aug. 1852	29.952		72.7		55.3	4.400		
Means for Aug. 3 years	29.937		74.3		57.1	2.799	W. 17—100.	

The extreme range of the barometer during the month was 0.484 of an inch, and of the thermometer 39°.